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ABSTRACT

This manual provides assistance in developing and editing questions for the Medical Library Association General and Area of Concentration Examinations for Certification or Registration. After describing the certification procedures and the examination itself, suggestions for test item writers are provided, including preparing the item-as-a-whole, formulating the stem, generating distractor options, and editorial considerations. Finally, a review process for new test items is detailed. The following appendices are included: Sample Items by Cognitive Level; Performance Objectives in Health Science Librarianship, General Examination; Item Models for the General Examination; Performance Objectives in Health Sciences Librarianship, Area of Concentration; Item Models for the Area of Concentration Examination; Memo to Item Writers (sample); Item Submission Form (sample); a 41-item bibliography; and Item Writing Manual Evaluation. (Author/EW)

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MANUAL FOR ITEM WRITERS

Certification and Registration

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IR052496

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FOREWORD

The Medical Library Association is committed to providing the very best national assessment mechanism for the profession of health sciences librarianship, and is moving on many fronts to address the issue of quality assurance in professional practice. The current Examinations for Certification and Registration are an integral part of this effort; the involvement of members of the Association in the process of item development is essential and very much appreciated.

This manual is a new initiative of the Medical Library Association. It assists members in developing and editing questions for the MLA General and Area of Concentration Examinations for Certification or Registration by the Medical Library Association.

In addition to improving the quality of MLA examination item writing, the manual will also help individuals in their own educational and evaluation endeavors.

Utilize the information and techniques outlined here as part of MLA's collaborative effort to serve health sciences librarianship and, thereby, to serve society through education, research and improved patient care.

PRE-TEST

Directions: Each of the questions below is followed by four or five selected answers. Select the one that is best and circle the letter which precedes the answer you prefer.

1. Subject headings are to be assigned to a book in which the following subjects are discussed equally:

   ..Addison's disease
   ..Adrenal gland neoplasms
   ..Congenital adrenal hyperplasia
   ..Deficiency of adrenal cortex hormones
   ..Hypercorticism

   The best MeSH subject heading would be

   a. ADRENAL GLANDS
   b. ADRENAL GLAND DISEASES
   c. ADRENAL GLAND HYPERFUNCTION
   d. ADRENAL GLAND HYPOFUNCTION
   e. ADRENAL GLAND NEOPLASMS

2. For which of the following statements would the foregoing question be an acceptable measure?

   a. Select appropriate cataloging tools for classification information
   b. Identify appropriate cataloging tools for descriptive cataloging information
   c. Choose appropriate classification numbers from the NLM and LC classification schedules based on current cataloging practice
   d. Choose appropriate subject headings and subheadings based on an understanding of MeSH vocabulary and principles of organization

3. According to Bloom's taxonomy, the foregoing question is written at which cognitive level?

   a. Knowledge
   b. Comprehension
   c. Application
   d. Analysis
   e. Evaluation

4. In the foregoing sample, which of the following is considered the "key?"

   a. MeSH
   b. ADRENAL GLAND DISEASES
   c. Subject heading
   d. Addison's disease

5. In the foregoing sample, ADRENAL GLAND HYPERFUNCTION, would be considered

   a. A distracter
   b. A content limitation
   c. A key element
   d. A source
   e. A stem

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I. CERTIFICATION AND REGISTRATION

Certification and Registration represents the longstanding commitment of the Medical Library Association to foster excellence in professional practice by assuring entry-level competence in identified areas of health sciences librarianship. A voluntary program, it is designed to provide the candidate with direction in the development of career goals, to assist in the assessment of skill and knowledge, and to provide opportunities for the development of a network of supportive professional acquaintances.

Certification and Registration forms the cornerstone of a program of career recognition which acknowledges exemplary practice and the pursuit of excellence through disciplined professional development.

Certification and Registration helps MLA shape the character of the profession and of professional roles now and in the future.

II. THE EXAMINATION

The MLA Examination for Certification or Registration is but one component of a comprehensive and collaborative review of professional performance.

The Examination is broad and eclectic, with emphasis on the knowledge that health sciences librarians ordinarily use in the workplace and on the issues, thought processes, judgments and tasks that librarians face every day. The Examination restricts itself to the content relevant to health sciences librarianship. It does not attempt to test all that an entry level librarian might have learned in a graduate program in librarianship.

Candidates for Certification and candidates for Registration write the same examination. The Examination has two parts, a General Examination and an Area of Concentration Examination. Both parts of the Examination consist of multiple choice items based on a defined set of performance objectives.

A. General Examination

The General Examination assesses knowledge in three areas:

.. the environment of health sciences librarianship
.. public services in the health sciences library
.. technical services in the health sciences library

The General Examination recognizes the core of knowledge that unifies the profession of health sciences librarianship and information management.

B. Area of Concentration Examination

The Area of Concentration Examination acknowledges the reality of individual differences in interest, preparation and work experience. The examination deals in greater depth and specificity with the knowledge and skill required in a given area.

The candidate selects an Area of Concentration from among three options:

.. hospital librarianship
.. public services
.. technical services

Each examination contains a fair mixture of essential content assessed at several levels of cognitive complexity. Each of the examinations is relevant to the diverse but typical work settings for medical librarians. The result is a broad and valid sample of knowledge and skill expected of the entry-level health sciences librarian.

III. OBJECTIVES FOR PROFESSIONAL PERFORMANCE

The several dimensions of professional performance to which Certification and Registration refer are expressed in Objectives or "statements of expectation" for health sciences librarians.

The performance objective is a device used to make it clear as to how content is to be used. It states the behavior by which the candidate will be asked to demonstrate the required skill or knowledge. Action verbs are used to describe this behavior because they are precise and unambiguous. And, they reflect the complexity of thinking which is involved in demonstrating knowledge and skill on the Examinations.

Generally, lower levels of complexity require the recall or recognition of facts. Intermediate levels require one to apply information in solving problems, while higher levels expect analysis, synthesis or evaluation.

The Examinations for Certification or Registration refer directly to a set of objectives which describe behavior expected of an entry-level librarian with two years of experience.

Performance objectives for Health Sciences Librarians are presented in Appendix I.

IV. TEST ITEMS

A. Basic Considerations

1. Item Terminology

Objective test questions or items are those in which the examinee must select the one correct or best response from two or more alternatives. They are "objective" in that the marking process is highly uniform because the correct response has been determined in advance; the same score is received regardless of the mechanism used for scoring. Objective test items may be constructed in a variety of formats (e.g., multiple-choice, matching, true-false); however, psychometric research suggests that multiple choice items are the most reliable and valid of the objective formats. The MLA General Examination is composed entirely of multiple-choice questions; this manual is designed to facilitate proper and effective multiple-choice item development.

The following terminology is useful in describing any item in the multiple choice format:

MULTIPLE-CHOICE ITEM

A test question in which a number of alternative response choices are given from which the correct answer is to be selected. Most such items on the MLA General Examination use four or five choices

DISCRETE ITEM

A single multiple-choice question, including the choices

STEM

The initial part of the item in which the task is delineated - a question, directions, or an incomplete statement

OPTIONS

All the choices in an item

DISTRACTERS

The incorrect options

KEY

The correct answer

ITEM SETS

Two or more items based on a common passage, problem, graph, experiment, chart, or other stimulus materials

2. Item Models

Each item on the MLA Examinations for Certification and Registration is written according to an established set of specifications. These specifications constitute the "model" for the production of standardized items of equivalent difficulty assessing knowledge and skill in ways which have been judged appropriate to the examination and to the performance expected of entry-level librarians.

MLA Item Models are presented as Appendix II.

The following terminology is used in describing the model:

STATEMENT OF OBJECTIVE

..formalizes the desired behavior using a controlled vocabulary

GENERAL DESCRIPTION

..provides a succinct overview of the set of behaviors to be described more fully later in the model;

..a one or two sentence description of what is actually expected of the examinee

COGNITIVE LEVEL

..defines the level of complexity at which the examinee is expected to think in finding the suitable response to a given item;

..MLA Examination items are written at the following levels of complexity:

Knowledge

Knowledge is defined as the remembering of previously learned material. This may involve the recall of a wide range of material, from specific facts to complete theories, but all that is required is the bringing to mind of the appropriate information. Knowledge represents the lowest level of learning outcomes in the cognitive domain.

Comprehension

Comprehension is defined as the ability to grasp the meaning of material. This may be shown by translating material from one form into another (words to numbers), by interpreting material (explaining or summarizing), or by estimating future trends (predicting consequences or effects). These behaviors go one step beyond the simple remembering of material, but still represent relatively unsophisticated cognitive skill.

Application

Application refers to the ability to use learned material in new and concrete situations. This may include the application of rules, methods, concepts, principles, laws and theories. Application requires a higher level of understanding than is expected under comprehension or knowledge.

Analysis

Analysis refers to the ability to break down material into its component parts so that its organizational structure can be understood. This may include the identification of parts, analysis of the relationship between parts, and the recognition of organizational principles involved. Behaviors here represent a higher intellectual level than application or comprehension because they require an understanding of both the content and the structural form of the material.

Evaluation

Evaluation is concerned with the ability to judge the value of material (statement, statistics, research report, article) for a given purpose. The judgments are to be based on definite criteria. These may be internal criteria (organization) or external criteria (relevance to the purpose) and the examinee may be expected to determine the criteria or to appraise conditions according to them. Behavior at this level is sophisticated because it incorporates elements of all earlier categories, with the addition of conscious value judgments based on clearly defined criteria.

Synthesis

Synthesis refers to the ability to put parts together to form a new whole. This may involve the production of a unique communication (a paper or a speech), a plan of operations (research proposal), or a set of abstract relations (a scheme for classifying information). Behavior at this level emphasizes creative activity with major emphasis on problem solving, new patterns of activity and the development of new structures. The MLA Examination includes few items requiring thinking at this level of complexity.

Samples of questions written at each of the foregoing levels of cognitive complexity are provided as Appendix III.

CONTENT LIMITATIONS

..attempts to narrow the content with which the examinee is expected to demonstrate knowledge or understanding. MLA cites three options for limitation:

Precis or full text of the content to which the objective refers

Source citation(s) for the information needed by the examinee and from which any questions must derive

Key elements from the content on which special emphasis will be placed

ITEM FORMAT

..describes the form in which questions will be presented to the examinee. For our purposes we are providing further definitions:

Stimulus attributes

In this section, we must set down all the influential factors that constrain the composition of a set of test items. Anything less than the most rigorous standards of intellectual scrutiny will result in specifications that are imprecise and, worse for item writers, misleading.

Response attributes

This component focuses on the examinee's response to the elements generated according to the stimulus attributes section. Only selected responses are addressed in MLA items, that is, responses selected by the examinee from among those presented as potential options. Rules must be provided for determining not only the nature of the correct response, but also the nature of the wrong answer options.

CRITERION FOR CREDIT

..describes the criteria by which answers are judged. The correct answer may be the best among several options, each of which receives partial credit. Or, in another case, only the correct answer receives credit.

ITEM SAMPLE

..provides an exact example of an item in full compliance with the foregoing specifications. The sample has three components:

Directions

An explanation of how the student is to accomplish the item. Caution is necessary to prevent the directions from exceeding the demands of the objective to which the item refers.

Item

A discrete presentation including the stem and options (both distracters and key), presented in that order.

Key

The correct answer. In the item model and in all items submitted, the key is always presented last, for convenient identification.

IV. TEST ITEMS

B. Hints for Writers

1. Preparing the Item-as-a-Whole

The first step in preparing an item for one of the MLA Examinations is a review of personal experience, knowledge and skill in health sciences librarianship. Insightful items, appraising the performance of librarians at the entry-level, grow out of professional practice well-grounded in the basic theories of librarianship applied in the unique setting of the health sciences.

Select an area of interest and thorough understanding, important to the field and important to the examinee. While the Performance Objectives in Health Sciences Librarianship and the MLA Item Models provide direction in the construction of individual items, they cannot substitute for personal knowledge and experience on the part of the item writer.

The following comments on the Item-as-a-Whole may be helpful in preparing to write:

* Use language that is simple, direct and free of ambiguity. Do not make an item a test of reading ability unless such is the purpose of the question.

* Keep the purpose of the item clearly in mind. That is, if you intend to test factual knowledge, do not "dress up" the item to appear otherwise; if you intend to test problem-solving skills, be sure that the item cannot be answered on the basis of factual information alone.

* If you intend for an item to be difficult, make certain that it is difficult because it requires sophisticated reasoning or the understanding of a higher level concept, not because it tests obscure or esoteric subject matter. Remember the audience for which the examination is designed: librarians with two years of experience and a working knowledge of basic concepts and practices in health sciences librarianship. Here the MLA Item Models offer a prototype for direct application.

* Structure the item around one central idea or problem that is presented in the stem and to which all the options relate in the same way.

2. Formulating the Stem

The stem is the most important portion of an item, because it presents the task or problem to the examinee. It, therefore, must be clearly written in order that examinees know what is expected of them. If the item requires that the examinee read the options before the nature of the item can be comprehended, then the stem is inadequate.

To illustrate the dilemma this poses for the examinee, consider the following example.

Example 1

Vitamin D:

a. prevents scurvy
b. is an antibiotic
c. is found in milk
d. is also known as niacin

Note here that (1) the abbreviated stem does not convey the nature of the problem to the examinee; and (2) there is a lack of homogeneity in the options. The item is poor from the examinee's vantage point and indicates that the item writer has not properly formulated what is to be tested.

Consistent with providing the examinee a clear understanding of what is expected, the stem should not be structured for "fill-in" responses. Such "breaks" in the stem unnecessarily impede clarity. An example of this is illustrated below.

Example 2

The profession of ________ is concerned primarily with vision care

a. optometry
b. podiatry
c. cardiology
d. pharmacy

When several items are based on a single setting or on stimulus material such as a passage, graphs, or charts, make sure that each item is independent of the other items in the set. The examinee is expected to arrive at the answer from the information provided in the stimulus material not from having answered correctly a previous question in the set. Avoid using distracters in one question that may provide clues for answering another question in the set. (A notable exception is that in which an algorithm or specific procedure is to be tested and where the correctness of a step depends upon the accuracy of a previous decision or action. Presently, however, the MLA Item Models do not include such materials.)

MLA Item Models are specific in describing the stimulus attributes for items. Following those models carefully will assure the production of items which avoid many pitfalls.

3. Generating Distracter Options

Although the development of the item stem is critical for the item to contribute to a valid measure of achievement, the construction of distracters is equally critical but probably more difficult. The most obvious purpose of a good distracter is, in a sense, to camouflage the correct response. As such, a good distracter will be attractive or compelling to the examinee who does not know the correct response or who has incomplete or superficial knowledge of the material. While distracters need not be equally compelling, they should represent an array of errors or misconceptions for a range of seriousness or crudeness.

One very useful way of generating distracters is to anticipate how examinees could independently arrive at logical though incorrect responses, and then to utilize such incorrect responses as distracters. As an example of this approach, consider the example below.

Example 1

15 x 5	15 x 5
a. 73	a. 3
b. 74	b. 20
c. 75	c. 55
d. 76	d. 75

The distracters on the left are designed solely to camouflage the correct response. However, since there is no obviously rational way to compute the responses in options a, b, and d, the distracters are ineffective despite their numeric proximity to the keyed response. In contrast, the corresponding item on the right contains distracters that bear a rational but incorrect logic.

Option a would be obtained by solving the problem through division rather than multiplication

Option b involves the erroneous use of addition

Option c represents the use of multiplication but without properly carrying the two from the "ones" to the "tens" column.

This item illustrates a very important principle in generating distracters: treat distracters as a codification of incorrect responses that examinees would likely supply if multiple choices were not provided.

There are two additional considerations for writing distracters. First, you should not try to "trick" the examinee. Therefore, do not write distracters with ambiguous or misleading terms. Second, your items should avoid combination options such as "none of the above," or "all of the above." These options contain inherent psychometric weaknesses that lower test reliability and validity.

4. Editorial Considerations

It is important that you review and edit items before submission. This will lower the incidence of: (1) ambiguities or other problems preventing the knowledgeable examinee from responding correctly; and (2) cues that "give away" the correct responses to a marginal examinee.

The formal review process for the MLA Examinations is discussed in **Section V - Review Process**. However, some editorial issues are outlined below:

- Options should be independent and mutually exclusive.
- Items asking for a particular course of action should not solicit the examinee's opinion (What would you do?) but rather, what the best action is (What should you do?).
- Avoid using double negatives; they only serve to confuse. (It makes no sense to ask the examinee to recognize that it is not true that that William Osler did not establish the National Library of Medicine.)
- Avoid using absolute qualifiers (e.g., always, never, totally, completely) in the options, since they do not allow for the exceptional case and, therefore, usually provide a clue that the response is incorrect.
- Overly long, qualified and technical options are typically clues to the correct response. Insure that each option within a given item is similar in form and length.
- Options that are not grammatically consistent with the

stem are typically incorrect. Therefore, insure that each option provides grammatical consistency.

V. THE REVIEW PROCESS

After a new item has been prepared (following the guidelines set forth earlier in this manual), it should be submitted to the Editor of the Examination along with a cover sheet (see **Memo to Item Writers, Appendix IV** and **Item Submission Form, Appendix V**) which gives the Panel as much detail as possible about the new item. This detailed information is essential for an effective review by the Editorial Panel for Certification and Registration Examination. Indicate the part of the examination for which the item is submitted, either general or area of concentration. Within those parts, indicate the area for which that item is intended, e.g., public service, health care environment, etc. Be sure to identify the specific objective for which the item has been written and to explain what the item is intended to do. For each response option, give sufficient detail to explain why that response is incorrect or correct. There should be only ONE correct answer; all of the other responses should be incorrect. Finally, cite exactly the source in which the correct answer can be found. If this cover sheet has not been completed, the item will be returned without review until the needed information has been supplied.

If the cover sheet is in order, the item will be reviewed by a Panel member for the following criteria:

1. Does the item seem to be appropriate for the specified part of the examination?
2. Does the item conform to the objective?
3. Does the item meet the model specification for that objective?
4. Is the item accurate, and does it have only one correct answer?
5. Is the right answer found in the cited source?
6. Does the item seem to be reasonable in view of the stated objective?

At this point, the Panel member will recommend one of three possible actions:

1. Accept the item for the data bank.
2. Accept the item with very minor revision (mostly of an editorial nature).
3. Reject the item and discard it.

The Panel as a whole will review each of the recommendations and will come to consensus on the disposition of the item. To ensure confidentiality and credibility for the examination, item writers will not be informed of the action taken on individual items. However, each item will be acknowledged by the Panel, and a list of individuals submitting items will be published in the **MLA News**.

It will be the responsibility of the Panel to monitor the data bank continuously to ensure that the items are accurate, current, and at the proper level. The Panel also will determine objectives for which there is a shortage of items.

The Panel will work with the Certification Committee in determining the blue print for the examination (number of questions to be included for each objective) and will select the items to be included on each of the annual examinations.

POST TEST

1. Using the item which follows, MARK these components

   a. Item Stem
   b. Options
   c. Distracters
   d. Key

Sample item:

Listed below are sources which might be used to evaluate a small hospital library.

a. **Cumulated Index to Nursing and Allied Health Literature**
b. **Hospital Library Index**
c. **"A Library of Internists"**
d. **Medical Books and Serials in Print**
e. **"Selected List of Books and Journals for the Small Library"** (The Brandon List)

Which of the following combinations represents the most useful tools?

1. A,C
2. A,D
3. B,D
4. B,E
5. C,E

2. In MLA Item Models, which of the following defines the subject matter to be covered in an item?

   a. General Description
   b. Stimulus Attributes
   c. Content Limitations
   d. Key Elements

3. Items which expect the examinees to assess value on the basis of identified criteria are written at which of the following cognitive levels?

   a. Synthesis
   b. Evaluation
   c. Analysis
   d. Application

4. Area of Concentration Examinations will NOT be given in

   a. Technical Services
   b. Hospital Librarianship
   c. Health Care Systems
   d. Public Services

5. Item Writers should submit items to

   a. Certification Committee
   b. Director of Education
   c. Editorial Panel of Certification and Registration Examination
   d. Local Chapter representatives

APPENDIX I

Sample Items by Cognitive Level

KNOWLEDGE (remembering ideas, materials, rules)

Item Sample:

You have been asked to purchase a book called "Physicians and Social Medicine" for your library. The person making the request doesn't know the publisher, but thinks the work was published in 1984. Before ordering this book, you would like to verify the price and the publisher. Which of the following is not an appropriate source for verifying this information?

1. **Books in Print**
2. **Cumulative Book Index**
3. **Medical Books and Serials in Print**
4. **Forthcoming Books**

Here the answer is 4. **Books in Print** would be an appropriate source, since it provides a listing of titles currently in print. Each entry includes full bibliographic verification such as author, title, edition, publisher, place and date of publication, and price. **Cumulative Book Index** provides a list of books that can currently be purchased from publishers. **Medical Books and Serials in Print** provides a listing of titles currently in print. Both include full bibliographic verification information. Both are appropriate. Only **Forthcoming Books** is not an appropriate source since it includes titles that have not yet been published. There is your correct answer. Now, of course, you may have remembered this from your basic course in health sciences bibliography, but you could reach the same conclusion by a process of elimination, drawing upon what you DO remember to deduce the right answer.

COMPREHENSION (understanding the meaning)

Item Sample

"One aspect of decision-making by patients, namely decisions that give permission for diagnostic or treatment interventions." For which of the following is this definition most appropriate?

1. Invasive procedures
2. Ethical dilemma
3. Medical paternalism
4. Informed consent
5. Fiduciary responsibility

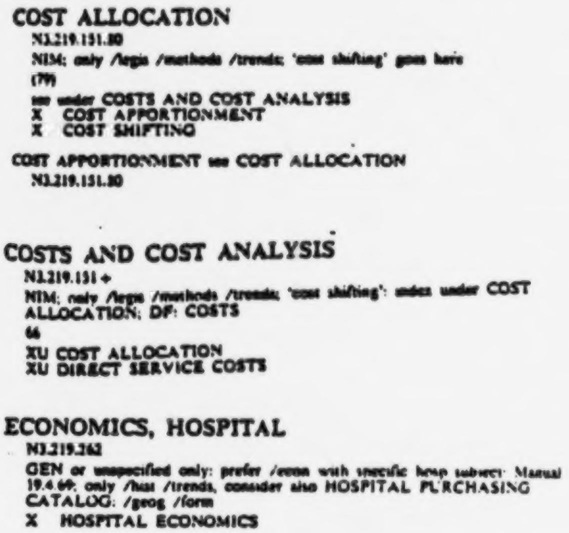
Your answer should be 4. Here the task is that of understanding the meaning of a definition presented in terms which you may not have seen before. Clues to the meaning may be found in "decision-making,"

"patients," and "permission." Or, you may be well-acquainted with ethical dimensions of the health care environment and immediately recognized the terms presented as options more or less appropriate to the definition. Using logic might have been helpful in narrowing the choice. Option 5 would likely be eliminated because it deals with another kind of decision, that of finance or payment of bills. Options 2 and 3 are unsatisfactory, although related, because they require definitions far broader than the one given. "Informed consent" is often considered when debating "medical paternalism," and certainly may figure in a discussion of ethical dilemmas of health care providers. The definition given fits option 4 perfectly; no other option is suitable.

APPLICATION (combining what you know to deal with a problem of situation)

Item Sample

You are cataloging the book titled **Relative Costs of Home Care and Hospital Care in Australia.** You note the following entries in the **Annotated Alphabetic MeSH:**



COST ALLOCATION
N3.219.151.80
NIM; only /legis /methods /trends; 'cost shifting' goes here
(79)
see under COSTS AND COST ANALYSIS
X COST APPORTIONMENT
X COST SHIFTING

COST APPORTIONMENT see COST ALLOCATION
N3.219.151.80

COSTS AND COST ANALYSIS
N3.219.151+
NIM; only /legis /methods /trends; 'cost shifting': index under COST ALLOCATION; DF: COSTS
66
XU COST ALLOCATION
XU DIRECT SERVICE COSTS

ECONOMICS, HOSPITAL
N3.219.262
GEN or unspecified only: prefer /econ with specific hosp subject: Manual 19.4.69; only /hist /trends, consider also HOSPITAL PURCHASING
CATALOG: /geog /form
X HOSPITAL ECONOMICS

According to NLM's cataloging practices and policies, the correct subject heading is

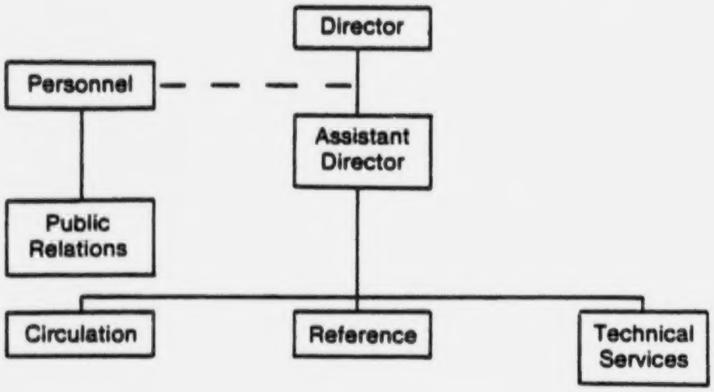
1. Cost Allocation
2. Cost Allocation -- trends
3. Costs and costs analysis -- Australia
4. Hospital Economics -- Australia
5. Economics, Hospital -- Australia

COMMENT:
The item requires you to apply a basic set of rules in interpreting an entry. Each of the statements presented is incorrect with the exception of 5. Why? Option 1 is a minor descriptor and is not used for cataloging according to NLM practice. Option 2 is also incorrect. The use of the subheading "trends" is permitted with the main heading "Cost Allocation" for indexing purposes. But since the main heading is a minor descriptor, neither the main heading nor the main heading-subheading combination are permitted for cataloging. The main heading "Cost and Cost Analysis" (3) is a major descriptor and, therefore, permitted for cataloging. However, the cataloging annotation for geographic subdivision is not present in the MeSH entry, so the subheading "Australia" is not permitted with this main heading. Therefore, the use of this main heading-subheading combination is incorrect. Option 4, "Hospital Economics," is not a major or a minor descriptor. It is an entry term, which is a "see" cross reference to a single MeSH heading. The use of an entry term with or without subheadings is incorrect. In 5 we find the correct answer. "Economics, Hospital" is a major descriptor, making it an appropriate heading for cataloging. The cataloging annotation for geographic subdivision is also present in the MeSH entry, making the use of the subheading "Australia" with this main heading correct.

ANALYSIS (extracting components and understanding their interrelationships)

Item Sample

The structure of a medical school library is shown in the organizational chart below. Which one of the statements describing the structure is correct?



1. The assistant director is responsible for the day-to-day supervision of the three operating units and the personnel office.
2. The director is responsible for overall planning and for direct supervision of the personnel office.
3. The personnel office serves in an advisory capacity to the director.
4. The personnel office has line authority within the medical school library.
5. The personnel office has authority over the assistant director.

COMMENT:
3 is the answer. You could come to this by seeing that it is the only answer which the organizational chart fits without any confusion. Option 4 was quickly eliminated--line authority within the medical school library-as was 5--personnel authority over the assistant director. If the chart is a graphic display of relationships within the organization, neither of these options would make any sense at all. The Assistant Director is clearly connected with circulation, reference, and technical services, but not with personnel or public relations, so 1 cannot be an accurate analysis of the structure presented. Option 2 could present some problems if you were to assume that the chart represented the entire institution. But read carefully. This is a library within the medical school. If the personnel office serves the entire school, then we understand that it aids the library director, but is under the direction of not the director, but another administrator in the school. The chart is a code which you must decipher (analyze) in order to know its meaning.

EVALUATION (judging among various ideas, methods and options as to the most valuable)

Item Sample

The library director has requested projected budget figures for next year's book budget. You, the technical services librarian, have cumulated financial and statistical data from your own library. In addition, you need reliable price indexes for health sciences monographs to support your projections on publishing and economic trends. The best printed source for this information is:

1. **Bookman's Price Index**
2. **Bowker Annual of Library and Book Trade Information**
3. **Bulletin of the Medical Library Association**
4. **Medical Books and Serials in Print**
5. **Publishers' Trade List Annual**

Comment: The correct answer is 2. Let's see why. **Bookman's Price Index** provides information for HISTORICAL books on a title by title basis. Entries are compiled from bookdealers' catalogs. It does not supply price indexes for CURRENT publications. **Medical Books and Serials in Print** (4) provides price information for CURRENT materials on a title by title basis, but it does not provide any comparison of prices or publishing trends. Two down for obvious reasons. Now the **Bulletin of the Medical Library Association** (3). The only acquisitions aid published in the BMLA is the **Selected List of Books and Journals for the Small Medical Library,** compiled by Brandon and Hill. Published every two years, this is a core list of medical books and journals. It is only a list of recommended titles. It does not include price indexes or support projections on trends in publishing and economics. Option 5 is a collection of publishers' catalogs. The catalogs are not compiled varies considerably, and not all publishers choose to be included. Only 2, the **Bowker Annual of Library and Book Trade Information,** includes a survey of subscription prices of American periodicals, divides the data into categories by subject, and compares subscription costs over a period of several years. It also provides information on the number of books published in different subject areas and the average price per book compared over a period of three years.

SYNTHESIS (combining parts to make a new pattern or whole)

Item Sample

You are the librarian in a small hospital. Your library has very limited space, so you must remove certain journal issues from the shelves in order to have space for shelving current issues. After a preliminary analysis, you have identified the following as candidates for removal to storage. All of the titles are used to some extent, but the library committee has authorized you to select from this group for storage.

	Title	Holdings	Indexes owned in which title is indexed	Years for storage
A.	*American Journal of Nursing*	1977-present	*IM, CINAHL*	1977-79
B.	*Circulation*	1973-77	*IM*	(all)
C.	*Diabetes*	1974-present	*IM*	1974-78
D.	*Medical World News*	1975-present	(none)	1975-79
E.	*Science*	scattered issues	*IM*	(all)

Which one of the following combinations would be most appropriate to remove?

1. A,B,C
2. A,B,D
3. B,C,E
4. B,D,E
5. C,D,E

COMMENT: The task of synthesis most often finds expression in the production of a unique product or performance: a learned paper, a lecture, or a blueprint, for example. At other times, it is a plan for action, such as a grant proposal. In this question, you are asked to link related concepts in reaching a conclusion (the answer is 4), the result of which is unique since the elements which are considered may change from situation to situation. The item is an incomplete or partial assessment of the ability to synthesize information for a specific purpose. Of course, in the workplace, this activity would result in a report or recommendation. Here we have only a sample of the reasoning necessary for professional-level performance.

APPENDIX II

Performance Objectives on the General Examination in Health Sciences Librarianship

Health Care Environment

1. Identify and describe legal, ethical, economic, and legislative issues that impact the health care industry in the United States and Canada.

2. Identify the major health care professionals, their educational requirements, their role in the delivery of health care, and their professional organizations.

3. Describe credentialling, licensing, or accreditation of professionals, programs, or institutions.

4. Describe the past and present role of the National Library of Medicine (NLM) in collecting, organizing, and disseminating health sciences information; in promoting interlibrary cooperation among health sciences libraries; and in current research grant support.

5. Describe the purposes, programs, activities, and publications of the Medical Library Association.

Public Services

1. Identify basic information needs of health sciences professionals, and the health sciences information needs of patients and other non-professionals.

2. Distinguish between the types of health sciences information resources according to their uses, functions, formats, or characteristics.

3. Select specific reference works or online sources of major importance in the health sciences for specific information needs or problems.

4. Select appropriate services based on user information needs.

5. Identify the characteristics of print and non-print sources derived from the MEDLARS system.

6. Evaluate results of an information search and select the most appropriate items for specific information needs.

7. Apply basic concepts for searching MEDLINE, CATLINE, and SERLINE.

Technical Services

1. Describe the purpose and the elements of a collection development policy.

2. Apply selection criteria as outlined in a collection development policy.

3. Select appropriate online and print sources for bibliographic verification.

4. Select appropriate cataloging tools and both online and print sources of bibliographic information for descriptive cataloging or classification information.

5. Choose appropriate classification numbers from the NLM and LC classification schedules based on current cataloging practice.

6. Choose appropriate subject headings and subheadings based on an understanding of MeSH vocabulary and the principles of application based on NLM's cataloging practices and policies.

APPENDIX III
ITEM MODELS FOR THE GENERAL EXAMINATION

HEALTH CARE ENVIRONMENT

Objective 1

Statement of Objective

Identify and describe legal, ethical, economic and legislative issues which impact the health care industry in the U.S. and Canada

General Description

Every examinee should be alert to current and emerging conditions, trends and issues in patient care, research and education. The examinee is expected to maintain a basic knowledge and understanding of terms and concepts referred to in the popular press and journals commonly consulted by health sciences librarians. The examinee should be able to link terms with their definitions, area of specific impact on the health care environment, and source of information.

Content Limitations

Sources: Will be limited to:
Specific references cited (*) in self study MLA courses CE 118: The Environment of Health Care and Biomedical Information.
J. Bradley, Hospital Library Management and Handbook of Medical Library Practice

Key Elements: Will include common acronyms, nontechnical abbreviation and areas of specific relevance to health care, research or education (e.g., ethics, economics, law, government, education)

Item Format 1

Stimulus Attributes:

1. The stem presents a single acronym relevant to current issues impacting the health care industry
2. The examinee is asked: "With which of the following is ? most (least) directly associated?"

Response Attributes:

1. Four or five alternative responses will be listed, each consisting of an area of debate, study, or research in health care.
2. All responses will be superficially plausible to the uninformed examinee.
3. No response will be the exact definition of the acronym nor be the full set phrase from which the acronym derives.
4. Only one correct answer will be possible.

Criterion for Credit:

Credit will be given for the correct answer only.

Item Sample:

With which of the following is DRG most directly associated?

1. Clinical trials
2. Artificial intelligence
3. Patient education
4. Disease-specific conspectus information
5. Cost-containment

Item Format 2

Stimulus Attributes:

1. The stem presents the question: "Which of the following is most (least) often associated with ?"

2. The question may be modified to include a noun to which the "following" refers (e.g., persons, terms, books, journals, agencies, etc.)

3. Issues or topics queried are limited to those addressed in MLA CE course CE 118 or regularly confronted by the regular reader of the popular press.

Response Attributes:

1. Four or five alternative responses will be given, each consisting of a short phrase, an acronym, title or name.

2. All responses will be superficially plausible; none will be obviously irrelevant to the marginally informed examinee.

3. Only one correct answer will be possible.

Criterion for Credit:

Credit will be given for the correct answer only.

Item Sample:

Which of the following is most often associated with support of "right to life?"

1. American Bar Association
2. B'nai B'rith
3. American Civil Liberties Union
4. American Medical Association
5. Moral Majority

Item Format 3

Stimulus Attributes:

1. The stem presents a non-technical definition of a term followed by the question: "For which of the following is this definition most appropriate?"

2. Definitions will be limited to topics introduced in CE 118 or regularly encountered in the popular press by regular readers.

Response Attributes:

1. Four or five alternate responses will be listed, each consisting of a word, acronym or phrase.

2. All responses will be plausible; no response will be obviously irrelevant to the uninformed examinee.

3. Distractors which are partially correct or for which the stem definition is incomplete will be accepted.

4. Only one answer will be correct.

Criterion for Credit:

Credit will be given for the correct answer only.

Item Sample:

"One aspect of decision-making by patients, namely decisions that give permission for diagnostic or treatment interventions."

For which of the following is this definition most appropriate?

1. invasive procedures
2. ethical dilemma
3. medical paternalism
4. fiduciary responsibility
5. informed consent

Objective 2

Statement of Objective

Identify the major health care professionals, their educational requirements, their role in the delivery of health care, and their professional organizations.

General Description

Every examinee should be able to identify the major health care professionals, be familiar with the educational requirements of each of these professionals, and identify the major professional organizations.

Content Limitations

Sources: Will be the MLA self study course CE 118: The Environment of Health Care and Biomedical Information.

Key Elements: Each question will be a statement about a health professional and: their educational requirements or
their role in the delivery of health care or
their professional organizations

Item Format 1

Stimulus Attributes:

1. Each item will ask a question about the health care professionals and their educational requirements.
2. Each item will be in the following format: Which of the following is most (least) likely to be (followed by a statement concerning health professional education)

Response Attributes:

1. Four or five alternative responses will be given consisting of either health professionals, educational programs or institutions.
2. Responses may be types of educational institutions or types of health professionals.
3. Distracters for items phrased least likely will have only one distracter which will not be correct according to the stem.
4. Distracters for items phrased most likely will have only one response which is correct. The rest will be plausible to the uninformed examinee.

5. Only one correct answer will be possible.

Criterion for Credit:

Credit will be given for the correct answer only. Incorrect answers will not lower the total score.

Item Sample:

Which of the following is least likely to be found in an academic medical center which has a School of Medicine?

1. School of Nursing
2. School of Dentistry
3. School of Public Health
4. School of Pharmacy
5. School of Osteopathic Medicine

Item Sample:

Which of the following nursing professionals is most likely to have the most advanced level of education?

1. Licensed Practical Nurse
2. Nurses Aide
3. Ward Secretary
4. Registered Nurse

Item Format 2

Stimulus Attributes:

1. Each stem will present a statement concerning a health professional and their role in the delivery of health care.

2. The stem will be in the following format: Which health professional is most (least) likely to (followed by a statement concerning role)

Response Attributes:

1. Four or five alternative responses will be given, each consisting of a type of health professional.

2. Distracters will either be all correct but one or all incorrect but one.

3. Only one answer will be correct.

Criterion for Credit:

Credit will be given for the correct answer only. Incorrect answers will not lower the total score.

Item Sample:

Which nursing professional is most likely to function in the role of head nurse?

1. Licensed Practical Nurse
2. Nurses Aide
3. Ward Secretary
4. Registered Nurse

Item Sample:

In addition to physicians, which groups of health professionals are able to prescribe medications?

1. Nurse practitioners, dentists
2. Osteopaths, pharmacists
3. Pharmacists, nurse practitioners
4. Dentists, osteopaths

Item Sample:

Which of the following is least likely to be a subspeciality of medicine?

1. Hematology
2. Cardiology
3. Internal medicine
4. Nephrology
5. Otolaryngology

Item Format 3

Stimulus Attributes:

1. Each item will contain a statement relating a health professional to a professional organization.

2. The items will be in the following format: Which of the following [is/is not] (followed by a statement concerning a category of health professionals and professional organizations)

Response Attributes:

1. Four or five alternative responses will be given which consist of health professional organizations.

2. Names of professional organizations will either be all spelled out or listed by initials.

3. All responses will be plausible to the uninformed.

4. Only one correct answer will be possible.

Criterion for Credit:

Credit will be given for the correct answer only. Incorrect answers will not lower the total score.

Item Sample:

Which of the following is the largest medical professional organization to which physicians belong?

1. AAMC
2. AHA
3. ANA
4. AAHSLD
5. AMA

HEALTH CARE ENVIRONMENT

Objective 3

Statement of Objective

Describes credentialing, licensing or accreditation of professionals, programs or institutions.

General Description

Every examinee should be able to describe which health professionals are licensed, and/or credentialed and should be able to identify programs or institutions which are accredited. This should include distinguishing the difference in meaning of each of these. The examinees should be able to describe key institutions or organizations which license, certify or accredit as well as the role continuing education plays in this process.

Content Limitations

Sources: Will be the MLA self study course CE 118: The Environment of Health Care and Biomedical Information.

Key Elements: Will include those professions which are licensed, certified and/or accredited; institutions or organizations which license, certify or accredit health professionals, institutions or programs; role of continuing education in licensure, certification or accreditation; difference in the meaning of licensure, certification, or accreditation.

Item Format 1

Stimulus Attributes:

1. The stem will present a question about a health care profession which is licensed, certified or accredited.

2. The question will be in the following format: Which of the following is (is not) _______________ (a licensed, certified, or accredited health practitioner or group of health practitioners)?

Response Attributes:

1. Four or five responses will be given.

2. Incorrect responses will be those which are (are not) a licensed, certified or accredited health professional or group of health professionals.

3. Only one correct answer will be possible.

Criterion for Credit:

Credit will be given for the correct answer only. Incorrect answers will not lower the total score.

Item Sample:

Which of the following is not a certified medical speciality?

1. Surgery
2. Pediatrics
3. Radiology
4. Internal Medicine
5. Optometry

Item Format 2

Stimulus Attributes:

1. The stem paraphrases the definition or the purpose of licensure, certification or accreditation.
2. The examinee is expected to recall from memory the correct answer.

Response Attributes:

1. Three responses will be given.
2. Only one will be correct.
3. The distractors will be incorrect by definition or purpose.

Criterion for Credit:

Credit will be given for the correct answer only. Incorrect answers will not lower the total score.

Item Sample:

________________ has been developed to protect the public health through the development and enforcement of standards for either individuals or institutions.

1. Accreditation
2. Certification
3. Licensure

Item Format 3

Stimulus Attributes:

1. The stem will make a statement about health professionals, institutions or programs which are licensed, certified or accredited.

2. The format of the question is: Which institution or organization ______________ (accredits, certifies or licenses) ______ (a health professional, group of health professionals, an institution or a program)

Response Attributes:

1. Four or five responses will be given.

2. These may be in the form of names spelled out in full or initials but should be all the same in the response to a particular item.

3. Only one answer will be correct.

4. Distractors will be organizations or institutions which are plausible health related organizations or institutions.

Criterion for Credit:

Credit will be given for the correct answer only. Incorrect answers will not lower the total score.

Item Sample:

Which organization has developed quality standards by which hospitals are accredited?

1. American Medical Association
2. American College of Health Administrators
3. American Hospital Association
4. American College of Surgeons
5. Joint Commission on Accreditation of Hospitals

Item Format 4

Stimulus Attributes:

1. Examinees are expected to understand the role of continuing education in licensure, certification or accreditation.

2. The stem will present a statement about continuing education as it relates to licensure or certification.

Response Attributes:

1. Four or five alternative responses will be given which list various health professionals.

2. The distractors will include three or four groups of health professionals which do fulfill the requirement stated in the stem.

3. One responses will be a group which does not meet the requirement stated in the stem.

4. Only one response will be correct.

Criterion for Credit:

Credit will be given for the correct answer only. Incorrect answers will not lower the total score.

Item Sample:

Continuing education is mandatory to maintain licensure for all but which of the following?

1. Physician
2. Nurses
3. Pharmacists
4. Medical records practitioners
5. Medical librarians

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Objective 4

Statement of Objective

Describe the past and present role of the National Library of Medicine (NLM) in collecting, organizing, and disseminating health sciences information; in promoting interlibrary cooperation among health sciences libraries; and in current research grant support.

General Description

Every examinee should be able to describe NLM's authority and role for collecting, controlling and disseminating the biomedical literature; in promoting interlibrary cooperation among health sciences libraries; and in current research grant support.

Content Limitations

Sources: Will be limited to:
Estelle Brodman's The Development of Medical Bibliography, "The National Library of Medicine" in Handbook of Medical Library Practice, 3d ed (Use 4th ed whenever possible)
Adams, S. Medical Bibliography in an Age of Discontinuity , MLA 1981

Key Elements: Will include major changes in NLM's role throughout its history; major aspects of the regional medical library program; NLM's collection development policy; major legislation which defined NLM's role and activities; NLM's role in collecting, organizing, and disseminating the biomedical literature; and NLM's role in current research grant support.

Item Format 1

Stimulus Attributes:

1. The stem presents a major role or activity of the National Library of Medicine
2. Each question will require selecting the event or occurrence which brought about the role mentioned in the stem

Response Attributes:

1. Four or five alternative responses will be given.
2. Each response will present an actual or possible event or occurrence which has or may have impacted on the role of the National Library of Medicine.
3. The correct response will be the event or occurrence which resulted directly in the role or activity mentioned in the stem.

4. An incorrect response may be an event or occurrence which relates to other roles or activities of the National Library of Medicine.

5. An incorrect response may be an event or occurrence which did not affect the National Library of Medicine.

6. Only one response will be correct.

Criterion for Credit:

Credit will be given for the correct answer only. Incorrect answers will not lower the total score.

Item Sample:

The National Library of Medicine was established by law as a national information resource by which of the following:

1. Medical Library Assistance Act, 1965
2. Congressional appropriation to Surgeon General's Library, 1872
3. President's Commission of Heart Disease, Cancer, and Stroke, 1952
4. Hoover Commission Task Force on Federal Medical Services, 1952
5. National Library of Medicine Act, 1956

Item Format 2

Stimulus Attributes:

1. The stem presents a major event or occurrence which affected the role and activities of the National Library of Medicine.

2. Each question will require selecting the role or activity which is/was the result of that event or occurrence.

Response Attributes:

1. Four or five alternative responses will be given.

2. Each response will present an actual or possible role for the National Library of Medicine.

3. The correct response will be the one which most adequately or completely describes the role created by the event or occurrence mentioned in the stem.

4. An incorrect response may be a role which is not the direct result of the event or occurrence mentioned in the stem.

5. An incorrect response may be a partial role of the event or occurrence which is mentioned in the stem.

6. One incorrect response may be a role which has not been assigned to the National Library of Medicine.

7. Only one answer will be correct.

Criterion for Credit:

Credit will be given for the correct answer only. Incorrect answers will not lower the total score.

Item Sample:

The 1965 Medical Library Assistance Act broadened the role of the National Library of Medicine. Which of the following best describes the new role this legislation provided for the NLM?

1. Established by law the primacy of the National Library of Medicine as a national agency
2. Establish a national interlibrary loan system to facilitate document delivery to health care professionals
3. Organize local health sciences library consortia to promote sharing of information resources
4. Plan and implement the alteration of the traditional role of the academic and hospital health sciences libraries
5. Provide improved systems for health information delivery and comprehensive support to health science libraries

Item Format 3

Stimulus Attributes:

1. The stem will address activities, programs or organization of the Regional Medical Library Program.

2. The examinee will be asked which is the most (least) likely to be associated with the Regional Medical Library Program?

Response Attributes:

1. Four or five alternative responses will be listed.

2. All responses will be superficially plausible to the uninformed.

3. All responses will relate to library activities.

4. One response will be an activity which is not a Regional Medical Library Program responsibility.

5. Only one correct answer is possible.

Criterion for Credit:

Credit will be given for the correct answer only. Incorrect answers will not lower the total score.

Item Sample:

Which of the following is least likely to be associated with the Regional Medical Library Program?

1. Interlibrary loan
2. Coordination of online services
3. Consortium development
4. Collection development

Item Format 4

Stimulus Attributes:

1. The stem will relate to the authority and categories of assistance for grant support by the National Library of Medicine.

2. The stem will be in the following format: Which of the following is (is not) (authority or category of assistance) of grant activity of the NLM?

Response Attributes:

1. Four or five alternative responses will be given which relate to possible authority or categories of assistance.

2. The distracters will be correct activities or authority for the NLM grant programs when the stem is expressed as "is not".

3. The distracters will be plausible but not correct when the stem is expressed as "is".

4. Only one answer will be correct.

Criterion for Credit:

Credit will be given for the correct answer only. Incorrect answers will not lower the total score.

Item Sample:

Which of the following is not a category of assistance under the current grant support program of the NLM?

1. Resource grants
2. Training grants
3. Publication of nonprofit works is medicine
4. Regional Medical Library Programs
5. Construction grants

Item Format 5

Stimulus Attributes:

1. Items address aspects of the National Library of Medicine's collection development policy.

2. The item may relate to levels of collection, formats of materials collected or language.

Response Attributes:

1. Four or five alternative responses will be given.

2. The responses will be pertinent to the question stated in the stem.

3. The correct answer will require examinees to be familiar with general concepts of the NLM Collection Development Manual.

4. Only one correct answer is possible.

Criterion for Credit:

Credit will be given for the correct answer only. Incorrect answers will not lower the total score.

Item Sample:

In the area of clinical medicine, the National Library of Medicine collects at the level of a

1. Teaching collection
2. Reference collection
3. Research collection
4. Comprehensive collection

Item Format 6

Stimulus Attributes:

1. The stem provides a statement about one or more publications produced by the National Library of Medicine.

2. The stem is in the following format: Which of the following publications is most (least) likely to be an NLM publication?

Response Attributes:

1. Four or five alternative responses will be given.

2. The distracters for least likely will all be NLM publications

3. The distracters for most likely will not be NLM publications but will sound plausible.

4. Only one correct answer will be possible.

Criterion for Credit:

Credit will be given for the correct answer only. Incorrect answers will not lower the total score.

Item Sample:

Which is the following listing of serials is least likely to be an NLM publication?

1. Index of NLM Serial Titles
2. Health sciences Serials
3. List of Journals Indexed in Index Medicus
4. List of Serials Indexed for Online Users
5. World List of Scientific Periodicals, published in the years 1900-1950

Objective 5

Statement of Objective

Describe the purposes, programs, activities, and publications of the Medical Library Association.

General Description

Every examinee should be able to describe the purposes, programs, activities, and publications of the professional association for health sciences librarians.

Content Limitations

Sources: Will be limited to:
front matter from the Directory of the Medical Library Association
titles on the "MLA Publication Order Form,"
brochures on the following: membership, certification, and recertification
Handbook of Medical Library Practice, 3d ed, Ch. 13, "Professional Associations"

Key Elements: Will be purposes, programs, activities or publications of the Medical Library Association

Item Format 1

Stimulus Attributes:

1. Each question will require that the examinee recognize the MLA's purposes, programs, activities or publications.
2. The stem will have the following form: "Which of the following is not a ____________ (fill in purpose, program, activity or publication) of the Medical Library Association?"

Response Attributes:

1. Four or five alternative responses will be given, consisting of a phrase, a sentence, or a title.
2. Only one answer will be completely correct.
3. The distracters will all be purposes, programs, or published titles of the Medical Library Association.
4. The correct answer will not be a purpose, program, activity or publication of the Medical Library Association, but will sound plausible.

Criterion for Credit:

Credit will be given for the correct answer only. Incorrect answers will not lower the total score.

Item Sample:

Which of the following is not a program of the Medical Library Association?

1. Certification of health sciences librarians.
2. Provision of continuing education courses for health sciences librarians.
3. Approval of workshops in health sciences librarianship for continuing education credit.
4. Accreditation of graduate health sciences librarianship programs.

Item Format 2

Stimulus Attributes:

1. Each question will require that the examinee be familiar with the major components of the major MLA publications: the MLA News, the Bulletin of the Medical Library Association, the annual report, and the three volumes of the Handbook of Medical Library Practice.

2. The stem will have the following form: "Which MLA publication is most likely to contain the following _______________ (fill in a component such as Brief Communications, Job Opportunities, etc.)

Response Attributes:

1. Four or five alternative responses will be given consisting of an MLA publications.

2. Only one answer will be correct.

3. The distracters will be MLA publications which do not contain the particular component.

4. The correct answer will be the name of the MLA publication in which this particular component will be found.

Criterion for Credit:

Credit will be given for the correct answer only. Incorrect answers will not lower the total score.

Item Sample:

"Brief Communications" can be found as part of which MLA publication?

1. MLA News
2. MLA Annual Report
3. Volume III of the Handbook of Medical Library Practice
4. The Bulletin of the Medical Library Association

Item Format 3

Stimulus Attributes:

1. Each question will require that the examinee recognize the various MLA Committees and their relationship to overall MLA programs.

2. The stem will have the following format: The _______________ Committee is associated with which of the following MLA programs?

Response Attributes:

1. Four or five alternatives will be given, consisting of various MLA programs.

2. Only one answer will be correct.

3. The distracters will be names of other Medical Library Association programs.

4. The correct answer will be the name of the Medical Library Association program.

Criterion for Credit:

Credit will be given for the correct answer only. Incorrect answers will not lower the total score.

Item Sample:

The Certification Committee is associated with which of the following Medical Library Association programs?

1. Continuing Education
2. Editorial Panel for Certification and Registration Examination
3. Awards
4. Professional Development

PUBLIC SERVICES SECTION

Objective 1

Statement of Objective

Identify basic information needs of health sciences professionals, and the health sciences information needs of patients and other non-professionals.

General Description

Each examinee is expected to know and understand the types of information needs of physicians, dentists, pharmacists, nurses, allied health personnel, and other health professionals; students of these disciplines; patients and other non-professionals.

Content Limitations

Sources:

1. Hospital Library Management
2. Handbook of Medical Library Practice
3. Introduction to Reference Sources in the Health Sciences

Key Elements:

1. type of personnel, including whether practicing or student or patient/non-professional
2. typical information needs or requests

Criterion for Credit:

Credit will be given for the correct answer only.

Item Format 1

Stimulus Attributes:

1. The stem will present a particular information situation, problem or need followed by the question: "Which of the following user groups would [most/least] likely use this information?"

2. Each question will require an interpretation or generalization of typical information needs encountered by categories of health sciences personnel or of health information needs of patients and non-professionals.

Response Attributes:

1. Four or five alternative responses will be given.

2. Each response will be a user group likely to use a health sciences library.

3. If possible, one incorrect response should be totally

4. Two to three incorrect responses should be categories of personnel which might on occasion use or need the information mentioned in the stem.

5. The correct response must represent the user group [most/least] likely to use or need the information under the conditions mentioned in the stem.

Item Sample:

You have received a request for information concerning the care of an elderly patient with pneumonia. Which of the following user groups would most likely use the information?

1. X-ray technologists
2. Ward secretaries
3. Volunteers
4. Nurses

Correct answer: 4
Source: Hospital Library Management, p. 107

Item Format 2

Stimulus Attributes:

1. The stem will describe a category of health sciences information users. Sufficient information must be given in the stem to describe the context, setting, or purpose for which this group needs information. For example, nurses work in a variety of settings and the stem must present sufficient information so that adequate selection of responses can be made. Also, if student populations are described, there should be some description of the educational program or tasks for which the information is required.

2. After giving the context or setting for the type of personnel, the stem will conclude with the question: "Which of the following is the [most/least] likely type of information needed by this group?"

3. Each question will require an interpretation or generalization of typical information needs encountered by that category of users in the context of the situation presented in the stem.

Response Attributes:

1. Four or five alternative responses will be given.

2. Each response will represent a possible information need or type of information.

3. One response should involve a very common information need for the personnel in the context given in the stem.

4. Two to three incorrect responses should involve frequent to occasional information needs of the personnel in the context described in the stem.

5. One response should represent the least common information need based on the information available in the stem.

Item Sample:

You are planning a user education program for nurse anesthesia students. You want this program to help these students write case reports about their use of anesthetic drugs in the operating room as well as how these drugs affect the patient. Which of the following is the least likely to be needed by these students?

1. Pharmacological action
2. Non-proprietary names
3. Drug interactions
4. Adverse effects
5. Drug clinical trials, phase I

Correct answer: 5
Source: Introduction to Reference Sources in the Health Sciences, "Drug Information Sources" chapter

Objective 2

Statement of Objective

Distinguish between the types of health sciences information resources according to their uses, functions, formats, or characteristics.

General Description

Every examinee is expected to understand the general types of information resources in the health sciences, recognize their role in the transmission of health sciences information, and identify the purposes for which they are used. Types of information resources included are: monographs, journal articles, dictionaries, abstracting and indexing services, directories, patents, dissertations, etc.

Content Limitations

Sources:
1. Introduction to Reference Sources in the Health Sciences
2. Hospital Library Management
3. Handbook of Medical Library Practice

Key Elements:
1. information needs or use
2. types of information resources
3. uses, functions, formats, or characteristics of types of information resources

Criterion for Credit:
Credit will be given for the correct answer only.

Item Format 1

Stimulus Attributes:

1. An information need or request will be presented in the stem. This will be followed by the question, "Which type of information resource is [most/least] likely to answer this question?"

2. Each question will require selection of the [most/least] appropriate type of information resource based on knowledge of the uses, functions, formats, or characteristics of health sciences information resources.

Response Attributes:

1. Four or five alternative responses will be given.

2. Each response will represent a type of information resource.

3. Responses will not be specific, named sources such as Index Medicus, but rather a type of information resource such as "abstracting and indexing services".

4. Incorrect responses [will not/will] in general not provide the needed information or will not provide the needed information in an efficient manner.

5. The correct response will be the type information resource [most/least] likely to satisfy the information need presented in the stem.

Item Sample:

A medical student wants to find the original reference in which Marek's disease was described. Which type of information resource is most likely to answer this question?

1. Medical dictionaries
2. Abstracting and indexing services
3. Online search services
4. History of medicine sources
5. Syndrome dictionaries

Correct answer: 5
Source: Roper & Boorkman, p. 125

Item Format 2

Stimulus Attributes:

1. A type of information resource will be presented in the stem. Some descriptive information about the type of information resource at least so that the examinee understands exactly what is called for. This will be followed by the statement, "What is the [most/least likely type of information to be included in [this type of resource]?"

2. Each question will require selection of the [most/least] likely type of information which will be included in that type of information resource.

Responses Attributes:

1. Four to five alternative responses will be given.

2. Each response will represent a type of information or characteristic of information resources.

3. Incorrect responses will represent types of information or characteristics which [are not/are] present in the type of information resource represented.

4. The correct response will represent the type of information or characteristic which is [most/least] likely to be included in the type of information resource mentioned in the stem.

Item Sample:

An audiovisual catalog is least likely to include the following type of information.

1. intended audience
2. procurement method
3. format
4. duration
5. archival materials

Correct answer: 5
Source: *Introduction to Reference Sources in the Health Sciences*, p. 157.

Objective 3

Statement of Objective

Select specific reference works or online sources of major importance in the health sciences for specific information needs or problems.

General Description

Every examinee should be expected to select or recommend essential reference sources appropriate to solving common types of reference questions based on knowledge of scope, coverage, type of information included, arrangement, or access points of these tools.

Content Limitations

Sources:
1. Introduction to Reference Sources in the Health Sciences
2. Hospital Library Management
3. Handbook of Medical Library Practice, v.2.

Key Elements:
1. specific information need or problem
2. specific reference works or online resources
3. scope, coverage, content, arrangement, access points

Criterion for Credit:
Credit will be given for the correct answer only.

Item Format 1

Stimulus Attributes:

1. The stem presents the information problem or need, followed by the question: "Which of the following sources is [most/least] likely to answer this question?" or "Which of the following is [most/least] [efficient/quick]?"

2. Each question will require selection of specific, high-use reference sources, based on knowledge of their scope, coverage, content, arrangement, and access points.

Response Attributes:

1. Four or five alternative responses will be given.

2. Each response will consist of the complete title of a work or the author's last name and the complete title of the work, depending on how it is best known. All of the alternatives will be titles from sources listed under content limitations.

3. Only one correct answer will be possible. The other

alternatives may meet part of the stimulus, but not all of it.

4. An incorrect response may have a title which suggests that it is the correct answer without in fact being the correct answer.

5. An incorrect response may include related information, but not meet the condition ([most/least]) required in the stem.

Item Sample:

A resident wants to review the board certification requirements in family practice. Which of the following is most likely to answer this question?

1. AAMC Directory of American Medical Education
2. AHA Guide to the Health Care Field
3. Handbook for Foreign Medical Graduates
4. Physician Distribution and Medical Licensure in the U.S.
5. Directory of Medical Specialists

Correct answer: 5
Source: Introduction to Reference Sources in the Health Sciences p. 216

Item Format 2

Stimulus Attributes:

1. The stem presents a particular type of [access point/characteristic/type of information] which might be found in an information resource followed by the question: "Which of the following sources [includes/does not include] [access point or type of information]?" or "Which of the following sources [cover/does not cover] [content statement]?"

2. Each question will require selection of specific, high-use reference sources.

Response Attributes:

1. Four or five alternative responses will be given.

2. Each response will consist of the complete title of a work or the author's last name and the complete title of the work, depending on how it is best known. All of the alternatives will be titles from sources listed under content limitations.

3. Only one correct answer will be possible.

4. An incorrect response may have a title whose wording suggests it as a possibility.

5. An incorrect response may include related information or access points.

Item Sample:

Which of the following includes a listing of meetings?

1. Index to Scientific and Technical Proceedings
2. Directory of Published Proceedings
3. Conference Papers Index
4. Scientific Meetings

Correct answer: 4
Source: Roper & Boorkman, p. 96

Item Format 3

Stimulus Attributes:

1. The item consists of the question: "Which of the following [is/is not] included in [name of high use reference title]?"

2. Each question will require the selection of an appropriate response which applies to the reference work mentioned in the stem.

Response Attributes:

1. Four or five alternative responses will be given.

2. Each response will consist of a brief phrase or description which might relate to the reference work mentioned in the stem.

3. Each response might relate to scope, coverage, content, arrangement, or access point.

4. An incorrect response will not precisely meet the condition required in the stem.

Item Sample:

Which of the following is not included in the American Hospital Association Guide to the Health Care Field?

1. hospital address
2. payroll expenses
3. occupancy rate
4. governance structure
5. MEDICARE participation

Correct answer: 5
Source: Introduction to Reference Sources in the Health Sciences, p. 226

Objective 4

Statement of Objective

Select appropriate services based on user information needs.

General Description

Each examinee should be able to: 1) select appropriate information services based on anticipated or actual information needs of users, or 2) develop appropriate service objectives and goals.

Content Limitations

Sources:
1. Handbook of Medical Library Practice
2. Hospital Library Management
3. Introduction to Reference Sources in the Health Sciences

Key Elements:
1. user population
2. information needs, purposes, or requests
3. service possibilities or service goals and objectives

Criterion for Credit:
Credit will be given for the correct answer only.

Item Format 1

Stimulus Attributes:

1. The stem presents a description of the user group(s) involved with sufficient description of the setting and information needs to provide context for the question. This description will be followed by the question: "Which of the following [services/programs/activities/goals/objectives] will be [most/least] suitable?"

2. Each examinee will be required to select the option [most/least] suitable for the group's information needs.

Response Attributes:

1. Four to five alternative responses will be given.

2. Each response will represent a service, program, activity, goal, or objective which might be provided or appropriate for the user group.

3. The correct response will be that which will [most/least] likely meet the needs described in the stem.

4. An incorrect response might partially meet the needs described in the stem.

Sample Item:

Your medical school is planning to increase computer literacy among medical students. The Dean has approached you to determine how library services might fit into this plan. Which of the following services will be least suitable?

1. Offering instruction in the use of the library's online catalog
2. Teaching library users to search MEDLINE
3. Subscribing to computer magazines for informational reading
4. Acquiring microcomputer software for self-study in medical school courses
5. Offering a mediated MEDLINE search service

Correct answer: 5
Source: Handbook of Medical Library Practice, vol. 1

Objective 5

Statement of Objective

Identify the characteristics of print and non-print sources derived from the MEDLARS system.

General Description

The examinee must be able to distinguish between the use, content, scope, coverage, and access points of print and non-print information sources derived from the National Library of Medicine's MEDLARS system.

Content Limitations

Sources:

1. National Library of Medicine Online Services Reference Manual
2. MEDLINE: A Basic Guide to Searching by Susan Feinglos
3. Introduction to Reference Sources in the Health Sciences
4. Front matter of Index Medicus and MeSH

Key Elements:

1. MEDLARS databases and/or print sources
2. Components, parts, or characteristics of same

Criterion for Credit:

Credit will be given for the correct answer only.

Item Format 1

Stimulus Attributes:

1. Each item will consist of the question: "Which of the following [is/is not] included in [the MEDLARS database or print source]?" or "Which of the following is [true/false] about [the MEDLARS database or print source]?"

2. Each question will require the examinee to identify the component which [is/is not] part of the MEDLARS print source or database based on knowledge of the use, content, scope, coverage, or access points of the print source or database.

Response Attributes:

1. Four or five alternative responses will be given.

2. Each response will be a possible or actual characteristic or component of a MEDLARS print source or database.

3. Components may be a title, date of coverage, language, scope, part of the unit record, multiple printed sections which equal

the whole (i.e., Index Medicus contains List of Journals Indexed, Bibliography of Medical Reviews, Medical Subject Headings, Name Index, and Subject Index), etc.

4. Four out of the five alternatives [must/must not] be components of the specified printed source or database.

5. The correct response [will/will not] be a component of the specified printed source or database.

6. An incorrect response may be included in the MEDLARS system but [not in/in] the print source or database given in the stem.

Item Sample:

Which of the following is not included in the CATLINE database?

1. Serials
2. Monographs
3. Monographic serials
4. Works published after 1801
5. Americana

Correct answer: 5
Answer found in the Online Services Reference Manual, p. 191

Item Format 2

Stimulus Attributes:

1. Each item will begin with the statement "MeSH Annotated Alphabetic List contains the following entry:" followed by a complete entry from Medical Subject Headings, including scope notes, cross reference structure, dates and other annotations. The MeSH entry will be followed by the question: "Based on this entry, which of the following statements [is/is not] true?"

2. The examinee must interpret the notes for the entry and select the best response based on the examinee's understanding of the annotations in MeSH.

Response Attributes:

1. Four to five responses will be given.

2. All responses will relate to the Medical Subject Heading given in the example.

3. A response may be incorrect due to: inappropriate interpretation of content notes, searching notes, dates, cross reference structure, etc.

4. Only one of the responses will be correct.

Item Sample:

You are searching the printed *Index Medicus* for references on the topic of temporomandibular joint syndrome from 1966 to the present. You note the following entries in *MeSH Annotated Alphabetic List:*

TEMPOROMANDIBULAR JOINT DISEASES
C5.550.905+
note term below; DF: TMJ DIS
82

TEMPOROMANDIBULAR JOINT SYNDROME
C5.500.607.781 C5.550.905.905
C5.651.651.905
note term above; DF: TMJ SYNDROME
73; was COSTEN'S SYNDROME 1966-72
use TEMPOROMANDIBULAR JOINT SYNDROME to search COSTEN'S SYNDROME back thru 1966
X COSTEN'S SYNDROME
X MYOFASCIAL PAIN DYSFUNCTION SYNDROME, TEMPOROMANDIBULAR JOINT

Based on these entries, which one of the following statements is *correct* for searching the printed *Index Medicus?*

1. COSTEN'S SYNDROME is a "see" reference to TEMPOROMANDIBULAR JOINT DISEASES
2. COSTEN'S SYNDROME should be used from 1966 to 1972
3. TEMPOROMANDIBULAR JOINT SYNDROME is searchable back through 1966
4. The data form abbreviation TMJ DIS is searchable
5. The data form abbreviation TMJ SYNDROME is searchable

Item Model -- Additional Examples

1. Access points

Item Format 3

Stimulus Attributes:

1. Each item will begin with the statement "MeSH Annotated Alphabetic List contains the following entry/entries:" followed by a complete entry or entries from Medical Subject Headings, including scope notes, cross reference structure, dates and other annotations. The MeSH entry/entries will be followed by the question: "Based on this entry/these entries, which one of the following statements [is/is not] a valid access point?"
2. The examinee must interpret the information in the entry and select the best response based on the examinee's understanding of the annotations in MeSH.

Response Attributes:

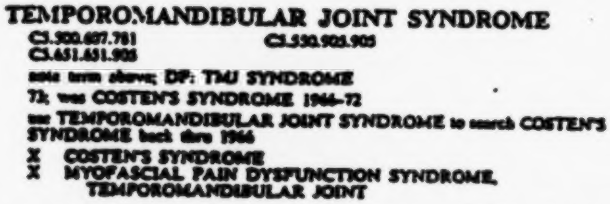
1. Four or five responses will be given.
2. All responses will be related to the entries in the example(s).

3. A response may be incorrect due to: inappropriate interpretation of content notes, searching notes, dates, cross reference structures, etc.

4. Only one of the responses will be correct.

Item Sample:

MeSH ANNOTATED ALPHABETIC LIST contains the following entry:



TEMPOROMANDIBULAR JOINT SYNDROME
C5.500.607.781 C5.550.905.905
C5.651.651.905
note term above; DF: TMJ SYNDROME
73; was COSTEN'S SYNDROME 1966-72
use TEMPOROMANDIBULAR JOINT SYNDROME to search COSTEN'S SYNDROME back thru 1966
X COSTEN'S SYNDROME
X MYOFASCIAL PAIN DYSFUNCTION SYNDROME, TEMPOROMANDIBULAR JOINT

Based on this entry which one of the following statements is a valid access point?

1. COSTEN'S SYNDROME
2. TMJ SYNDROME
3. MYOFASCIAL PAIN SYNDROME
4. TEMPOROMANDIBULAR JOINT SYNDROME

Objective 6

Statement of Objective

Evaluate results of an information search and select the most appropriate item for specific information needs.

General Description

Every examinee should be able to select MEDLINE or Index Medicus records or citations which are appropriate to a specific information need, making appropriate selection decisions based on knowledge of these sources and the materials to which they provide access. Each examinee must be able to discriminate between retrieved items with regard to content, publication type, audience, language, etc.

Content Limitations

Sources:
1. NLM Online Services Reference Manual
2. Introduction to Reference Sources in the Health Sciences
3. Front material of Index Medicus

Key Elements:
1. Citations resulting from search of Index Medicus or MEDLINE
2. Information request upon which to base selection

Criterion for Credit:
Credit will be given for the correct answer only.

Item Format 1

Stimulus Attributes:

1. The stem must include the type of information sought or the problem or need. The stem must also identify the source of the citations, whether MEDLINE or Index Medicus. The stem follows with the question "Which do you select [first/last]?" or "Which citations will be the [most/least] helpful?"

2. Each question will require selecting the [most/least] appropriate items retrieved based on the information need presented in the stem and on knowledge of MEDLINE or Index Medicus.

Response Attributes:

1. Four or five alternative responses will be given.

2. Each response will consist of MEDLINE records or Index Medicus citations which might have been retrieved from a real or simulated search.

3. One response will [best/least] answer the request or informatin need.

4. A response may be incorrect because of inappropriate content, form, type of publication, language, audience, human versus animal, etc. in response to the information need given in the stem.

5. A response may be incorrect because it [meets/does not meet] part of the information need but does not satisfy all elements of the request.

6. All responses should be somewhat plausible taking into account slight inconsistencies of indexing in addition to the fact that the examinee will have no knowledge of the subject headings used in searching MEDLINE or Index Medicus to retrieve the citations in the item.

Item Sample:

You are the clinical librarian in your hospital working with an obstetrics and gynecology team. The team needs data on dosage levels and adverse effects of calclon, a drug recently approved for use in female infertility. You have run a MEDLINE search and have retrieved the following citations. The team needs the information quickly. Which article do you select first?

1. TI - CALCLON: A NEW DRUG FOR INFERTILITY [NEWS].
   SO - AM J OBSTET GYNECOL 1983 SEP 1;143(1):58
2. TI - DOSE AND AGE DEPENDENT EFFECTS OF CALCLON ON THE INDUCTION OF OVULATION IN FEMALE RATS.
   SO - FERTIL STERIL 1983 JUL;38(1):13-8
3. TI - [CLINICAL USE AND EVALUATION OF CALCLON IN THE MANAGEMENT OF INFERTILITY].
   SO - J GYNECOL OBSTET BIOL REPROD (PARIS) 1983;11(3):337-42
4. TI - NEW DRUGS FOR TREATING FEMALE INFERTILITY.
   SO - JOGN NURS 1983 MAR-APR;11(2):132-7
5. TI - USE OF CALCLON IN THE TREATMENT OF INFERTILITY: RESULTS OF CLINICAL TRIALS.
   SO - JAMA 1983 MAY 8;246(18):1801-6

Correct answer: 5
Source: Online Services Reference Manual

Objective 7

Statement of Objective

Apply basic concepts for searching MEDLINE.

General Description

The examinee must demonstrate skill in developing search strategies for MEDLINE. This skill requires knowledge of unit record structure, controlled versus natural language vocabularies, Boolean logic, and use of subject headings and subheadings. The examinee must understand techniques for narrowing or broadening a search.

Content Limitations

Sources:
1. National Library of Medicine Online Services Reference Manual
2. MEDLINE: A Basic Guide to Searching by Susan Feinglos
3. Medical Subject Headings — Annotated Alphabetic List
4. Medical Subject Headings — Tree Structure List
5. Permuted Medical Subject Headings
6. CE courses and syllabi

Key Elements:
1. Information request
2. Boolean logic; Medical Subject Headings and subheadings; unit record structure; controlled versus natural language vocabularies

Criterion for Credit:
Credit will be given for the correct answer only.

Item Format 1

Stimulus Attributes:

1. Each item will describe an information need or request which may be satisfied through a MEDLINE search. The item will conclude with the question: "Which of the following approaches is the most logical and will retrieve the greatest number of relevant articles?"

2. Each question will require the selection of the appropriate response based upon knowledge of Boolean logic and/or use of Medical Subject Headings.

Response Attributes:

1. Four to five responses will be given.
2. Each response will consist of subject headings combined with Boolean operators. All responses will be plausible given the information request presented in the stem.
3. All responses will use actual MeSH headings.
4. An incorrect response will show a lack of search logic when it incorrectly uses Boolean logic (AND, OR, NOT operators).
5. An incorrect response will show an inappropriate level of comprehensiveness when the resultant statement is too narrow in its results, that is, when the strategy would provide too few retrieved items.
6. For any item, there must be at least one incorrect response which is faulty in Boolean logic and two which are too narrow.
7. Incorrect responses will be incorrect for the above reasons, not because they are specific commands used with a particular vendor.
8. Responses will be "generic", that it, they will not require knowledge of specific search software used by one vendor versus another.

Item Sample:

The Emergency Medicine Department Chairman is writing a book chapter and wants to retrieve some articles in which patients have been presented with gunshot wounds of the chest. Which search strategy is the most logical and will retrieve the greatest number of articles on the topic?

1. WOUNDS, GUNSHOT and CHEST INJURIES and PATIENTS and REVIEW
2. WOUNDS, GUNSHOT and CHEST INJURIES and REVIEW
3. WOUNDS, GUNSHOT or CHEST INJURIES not REVIEW
4. WOUNDS, GUNSHOT and CHEST INJURIES

Correct answer: 4 — the first two responses are too specific and the third is illogical.

Source: Introduction to Reference Sources in the Health Sciences

Item Format 2

Stimulus Attributes:

1. Each item will describe an information need or request which may be satisfied through a MEDLINE search. The item will conclude with the question: "Which search strategy is the most logical and will limit retrieval to a few major citations?"

2. Each question will require the selection of the appropriate response based upon knowledge of Boolean logic and/or use of Medical Subject Headings.

Response Attributes:

1. Four or five responses will be given.

2. Each response will consist of subject headings combined with Boolean operators. All responses will be plausible given the information request presented in the stem.

3. All responses will use actual MeSH headings.

4. An incorrect response will show a lack of search logic when it incorrectly uses Boolean logic (AND, OR, NOT operators).

5. An incorrect response will show an inappropriate level of comprehensiveness when the resultant statement is too broad in its results, that is, when the strategy would provide too many retrieved items.

6. For any item, there must be at least one incorrect response which is faulty in Boolean logic and two which are too broad.

7. Incorrect responses will be incorrect for the above reasons, not because they are specific commands used with a particular vendor.

8. Responses will be "generic", that is, they will not require knowledge of specific search software used by one vendor versus another.

Item Sample:

An Emergency Medicine resident needs a few citations about patients with gunshot wounds to the chest for a case presentation. Which search strategy is the most logical and will limit retrieval to a few major citations?

1. WOUNDS, GUNSHOT and CHEST INJURIES and ENGLISH
2. WOUNDS, GUNSHOT and CHEST INJURIES and HUMAN
3. WOUNDS, GUNSHOT or CHEST INJURIES (and) not ANIMAL
4. WOUNDS, GUNSHOT and CHEST INJURIES and REVIEW

Correct answer: 4 (the first two are logical but too broad, the third is illogical)

Source: Introduction to Reference Sources in the Health Sciences

Item Format 3

Stimulus Attributes:

1. Each item will begin with the statement "MeSH Annotated Alphabetic List contains the following entry:" followed by a complete entry from Medical Subject Headings, including scope notes, cross reference structure, dates and other annotations. The MeSH entry will be followed by the question: "Based on this entry, which of the following statements [is/is not] true?"

2. The examinee must interpret the notes for the entry and select the best response based on the examinee's understanding of the annotations in MeSH.

Response Attributes:

1. Four or five responses will be given.

2. All responses will relate to the Medical Subject Heading given in the example as applied to MEDLINE searching.

3. A response may be incorrect due to: inappropriate interpretation of content notes, searching notes, dates, cross reference structure, etc.

4. Only one of the responses will be correct.

Item Sample:

The 1982 *MeSH Annotated Alphabetic List* provides the following information for Nerve Compression Syndromes:

NERVE COMPRESSION SYNDROMES
C10.772.491+
coord IM with specific nerve (IM)
73(72); was NERVE COMPRESSION 1970-71 (Prov)
use NERVE COMPRESSION SYNDROMES to search NERVE COMPRESSION 1970-71 (as Prov)
X ENTRAPMENT NEUROPATHY
XR COMPARTMENT SYNDROMES

Based on the information given above, which one of the following statements is *incorrect?*

1. More specific terms related to NERVE COMPRESSION SYNDROMES are listed in *MeSH Tree Structures*
2. NERVE COMPRESSION SYNDROMES became a major descriptor in 1972
3. NERVE COMPRESSION SYNDROMES can be coordinated with the specific nerve(s) involved
4. There is a "see" reference from ENTRAPMENT NEUROPATHY to NERVE COMPRESSION SYNDROMES
5. When searching MEDLINE back to 1970, NERVE COMPRESSION SYNDROMES can be used even though the term in 1970 was NERVE COMPRESSION

TECHNICAL SERVICES

Objective 1

Statement of Objective

Describe the purpose and the elements of a collection development policy.

General Description

Every examinee should understand the purpose of a collection development policy and identify its essential elements, such as definitions of terms, description of user population, scope and coverage by subject, guidelines regarding format and type of material, date of publication, language, multiple copies, replacements, retention and withdrawals.

Content Limitations

Sources: Will be limited to the following:

1. Handbook of Medical Library Practice, v. 2, 1983, Ch. 2.
2. J. Bradley, Hospital Library Management, 1983, Ch. 3.
3. Course Guide for CE 112: Collection Development and Use.

Key Elements: Must include elements commonly found in collection development policies, such as definitions of terms, description of user population, scope and coverage by subject, guidelines regarding format and type of material, date of publication, language, multiple copies, replacements, retention and withdrawals.

Item Format

Stimulus Attributes:

1. The stem presents the question: "Which of the following elements would not be found in a collection development policy?"
2. Each item will require identification of the elements of a collection development policy.

Response Attributes:

1. Four or five alternative responses will be given, each consisting of elements found in collection development policies.
2. Only one correct answer will be possible.
3. The correct answer will be an element not found in collection development policies.

Criterion for Credit:

Credit will be given for the correct answer only.

Item Sample:

Which of the following elements would not be found in a collection development policy?

1. Criteria for determining whether or not to purchase duplicate texts
2. Description of the user population served by the library
3. A list of selection aids used by the library
4. A statement on the currency of the collection
5. Criteria for evaluating vendors used for making purchases

Source: Bradley, J. *Hospital Library Management*, p. 32-33.

Objective 2

Statement of Objective

Apply selection criteria as outlined in a collection development policy.

General Description

Every examinee should have the ability to interpret the selection criteria so that decisions about selecting or not selecting an item can be justified and/or explained. The examinee is expected to apply the selection criteria for monographs and journals as specified in the collection development policy. The examinee should be able to make title-specific decisions based on the more general criteria.

Content Limitations

Sources: Will be limited to the following:
1. J. Bradley, Hospital Library Management. 1983, Ch. 3
2. Handbook of Medical Library Practice, v. 2, 1983, Ch. 2-3
3. Course Guide for CE 112: Collection Development and Use.

Key Elements: Will include which monographs and journals to select according to subject level, audience level, language, price, publisher, year, scope, demand, availability elsewhere, indexing policy, and format as outlined in the criteria; how different types of libraries, such as, hospital, academic, or special, apply the same criteria in different ways.

Item Format

Stimulus Attributes:

1. The stem presents one or more criteria of a collection development policy.

2. The stem presents the setting in which the criteria are applied.

3. The stem will be followed by one of the following questions:

    a) "Applying the criteria listed above, which of the following titles would you choose first for your collection?"
    b) "Applying the criteria listed above, which of the following titles would be your last choice for selection?"
    c) "Which new journal title would you be most likely to add?"
    d) "Which title would you be most likely to weed?"
    e) "Which journal subscription would you be most likely to cancel?"

Response Attributes:

1. Four or five alternative responses will be listed, each consisting of one bibliographically complete title.

2. Further information, such as MeSH subject headings and classification numbers may be included with each response.

3. Only one correct response will best fit the criteria without violating any of the criteria.

4. The distracters will contain some elements that will violate one or more of the criteria. The distracters may violate the subject level, the audience level, or any of the following restrictions: language, price, publisher, year, scope, availability elsewhere, indexing policy and format.

5. The distracters will contain one or more of the elements of the criteria so that they are not completely irrational.

Criterion for Credit:
Credit will be given for the correct answer only.

Item Sample:

You are a librarian in a large, research hospital. Your collection policy states in part: "The Medical Library collects current monographs in oncology at the comprehensive level...Foreign language items are rarely added to the collection." You are currently looking at items in the National Library of Medicine's Current Catalog Proof Sheets that will be of use to the Cancer Research Unit in your institution. Applying the criteria listed above, which of the following titles would you choose first for your collection?

1. **Boenisch, Karl B. F. Krebsursache und atomare Fehlordnungen naturfremder Herkunft (Heterotope) / K.B.F. Boenisch. — Herzogsdorf [Austria] : Boenisch, c1972. — 16 leaves. Limited cataloging.**
   1. Neoplasms - etiology I. Title
   02NLM: AA6243 Cit. No. 8310472

2. **Cowdry, Edmund Vincent, 1888- Etiology and prevention of cancer in man. New York, Appleton-Century-Crofts [c1968] xxvi, 420 p. illus.**
   1. Neoplasms - prevention & control 2. Neoplasms - etiology I. Title
   LC: 68-10848
   04NLM,01IIMS: QZ 202 C874e 1968 Cit. No. 0163112 (rev.)

3. **Fundamentals of cancer management. — 1- — New York : Dekker, c1983- — v. : ill. Editors: Norman M. Bleehen, Eli Glatstein.**
   ISSN 0739-7364 = Fundamentals of cancer management.
   1. Neoplasms - therapy - periodicals I. Bleehen, Norman M., 1930- II. Glatstein, Eli.
   02NLM: W1 FU539S
   Cit. No. 8217738 (rev. CIP.)

4. **The Macrobiotic approach to cancer : towards preventing & controlling cancer with diet and lifestyle / [edited by] Michio Kushi and the East West Foundation. — Wayne, N.J. : Avery Pub. Group, c1982. — 126 p. : ill. Limited cataloging.**
ISBN 0-89529-209-2 (pbk.).
1. Holistic Health - popular works 2. Neoplasms - diet therapy - popular works 3. Neoplasms - prevention & control - popular works I. Kushi, Michio. **LC: 82-235726**
02NLM: CC6668
Cit. No. 8303714 (rev.)

5. **Oncodevelopmental markers : biologic, diagnostic, and monitoring aspects / edited by William H. Fishman. — New York : Academic Press, 1983. — xviii, 432 p. : ill.**
ISBN 0-12-257701-9
1. Genetic Marker 2. Neoplasms - diagnosis 3. Oncogenes I. Fishman, William H.
LC: 83-3826
02NLM: QZ 241 O58 1983
Cit. No. 8301840 (rev. CIP.)

Source: Handbook of Medical Library Practice, v. 2, p. 35-40.

TECHNICAL SERVICES

Objective 3

Statement of Objective

Select appropriate online and print sources for bibliographic verification.

General Description

Every examinee is expected to know a basic core list of online and print sources used to verify the bibliographic element of an item to be ordered. The examinee should be able to select the most or least appropriate source for verification for books and journals.

Content Limitations

Sources: Will be limited to the following:

1. Handbook of Medical Library Practice, v. 2, 1983, Ch. 3.
2. J. Bradley, Hospital Library Management, 1983, Ch. 4.
3. Course Guide for CE 112: Collection Development and Use.
4. F. Roper, J. A. Boorkman, Introduction to Reference Sources in the Health Sciences, 1984, Ch. 2-3.

Key Elements: Will include titles of standard, high-use, online and print sources of bibliographic information for library materials. Standard sources that should be considered include:

1. American Book Publishing Record
2. Books In Print
3. CATLINE
4. Cumulative Book Index
5. Forthcoming Books
6. Index of NLM Serial Titles
7. Irregular Serials and Annuals
8. Library of Congress National Union Catalog
9. List of Journals Indexed in Index Medicus
10. Medical Books and Serials in Print
11. National Library of Medicine Current Catalog
12. National Library of Medicine Current Catalog Proof Sheets
13. New Serials Titles
14. Paperbound Books in Print
15. SERLINE
16. Standard Periodical Directory
17. Ulrich's International Periodicals Directory

Item Format

Stimulus Attributes:

1. The stem will describe a type of publication to be purchased, or a particular bibliographic element of a title to be verified, followed by one of the following questions: "Which

of the following is the best source to verify this information?" or "Which of the following is not an appropriate source for verifying this information?"

2. Each item will require identification of specific, high-use, online and print verification sources and the information included in each.

Response Attributes:

1. Four or five alternative responses will be given, each consisting of full titles of standard online and/or print sources for verifying bibliographic and price information of health sciences library materials.
2. Only one correct answer will be possible.
3. Distracters should make the examinee discriminate between the different sources presented.
4. A distracter may not include the type of information requested, but may have a name that suggests that it might be included.
5. A distracter may include some of the information requested, but not all of it.
6. A distracter may be totally irrelevant.

Criterion for Credit:
Credit will be given for the correct answer only.

Item Sample 1:

You would like to purchase a monograph for your collection that you believe was published 5 years ago, but you do not know whether the item is still available for purchase. Which of the following is the best source to verify this information?

1. American Book Publishing Record
2. CATLINE
3. Cumulative Book Index
4. National Library of Medicine Current Catalog
5. Medical Books and Serials in Print

Source: Roper, F., Boorkman, JA. Introduction to Reference Sources in the Health Sciences, p. 23.

Item Sample 2:

You have been asked to purchase a book called "Physicians and Social Medicine" for your library. The person making the request doesn't know the publisher, but thinks the work was published in 1984. Before ordering this book, you would like to verify the price and the publisher. Which of the following is not an appropriate source for verifying this information?

1. Books in Print
2. Cumulative Book Index
3. Medical Books and Serials in Print
4. Forthcoming Books

Source: Roper, F., Boorkman, JA. Introduction to Reference Sources in the Health Sciences, p. 22-23.

Objective 4

Statement of Objective

Select appropriate cataloging tools and both online and print sources of bibliographic information for descriptive cataloging or classification information.

General Description

Every examinee is expected to know a basic core list of online and print sources for obtaining cataloging copy information for descriptive cataloging or classification numbers for monographs and serials. Examinees are expected to be able to interpret the information presented in each source.

Content Limitations

Sources: Will be limited to the following:

1. Handbook of Medical Library Practice, v. 2, 1983, Ch. 5-6.
2. J. Bradley, Hospital Library Management, 1983, Ch. 5.
3. Course Guide for CE 524: MeSH and NLM Classification.
4. F. Roper, J. A. Boorkman, Introduction to Reference Sources in the Health Sciences, 1984, Ch. 2.

Key Elements: Will include titles of standard, high-use, online and print sources of cataloging information for health sciences library materials. Standard sources that should be considered include:

1. Anglo-American Cataloging Rules, 2nd ed. (AACR2)
2. CATLINE
3. Cataloging in Publication
4. National Library of Medicine Classification
5. Library of Congress Classification
6. National Library of Medicine Current Catalog
7. National Library of Medicine Current Catalog Proof Sheets
8. National Union Catalog
9. OCLC

Item Format 1

Stimulus Attributes:

1. The stem will describe a particular title to be classified either in the NLM Classification, or the LC Classification if appropriate, followed by the question: "Which of the following is the best source to determine the classification number that NLM would assign to this work?" or "Which of the following is not an appropriate source for determining which classification number NLM would assign to this work?"

2. The stem may present other relevant information about the title, such as when it was published, if any and what kind of cataloging copy information is already in hand and needs to be updated or expanded on.

3. Each item will require identification of specific, high-use, online and print sources of cataloging information.

Response Attributes:

1. Four or five alternative responses will be given, each consisting of full titles of standard online and/or print sources of cataloging information.

2. Only one correct answer will be possible.

3. A distracter may include the information requested, but may not be the most authoritative source for the information.

4. A distracter may be totally irrelevant.

Criterion for Credit:
Credit will be given for the correct answer only.

Item Sample:

You are cataloging a book for your collection entitled: The Diagnosis and Therapy of Heart Disease, which was published this year. You know that cataloging copy is probably available for this title. Which of the following is the best source to determine the classification number that NLM would assign to this work?

1. Cataloging in Publication
2. National Union Catalog
3. OCLC
4. CATLINE

Sources: Course Guide for CE 524: MeSH and NLM Classification, p 5. Roper, F., Boorkman, JA. Introduction to Reference Sources in the Health Sciences, p 20.

Item Format 2

Stimulus Attributes:

1. The stem will describe a particular title to be cataloged followed by the question: "Which of the following is the best source to obtain current descriptive cataloging information according to the practices followed by the National Library of Medicine?" or "Which of the following is not an appropriate source for obtaining current descriptive cataloging information according to the cataloging practices followed by the National Library of Medicine?"

2. The stem may present other relevant information about the title, such as when it was published, if any and what kind of cataloging copy information is already in hand and needs to be updated or expanded on.

3. Each item will require identification of specific, high-use, online and/or print sources of descriptive cataloging information.

Response Attributes:

1. Four or five alternative responses will be given, each consisting of full titles of standard online and/or print sources of descriptive cataloging information.

2. Only one correct answer will be possible.

3. A distracter may include the information requested, but may not be the most authoritative source for the information.

4. A distracter may be totally irrelevant.

Criterion for Credit:
Credit will be given for the correct answer only.

Item Sample:

Your are cataloging a book for your collection entitled: Current Surgical Procedures in the Treatment of Heart Disease, which was published 2 years ago. You know that cataloging copy probably is available for this title. Which of the following is the best source to obtain current descriptive cataloging information according to the practices followed by the National Library of Medicine?

1. Cataloging in Publication
2. National Union Catalog
3. National Library of Medicine Current Catalog
4. CATLINE

Sources: Course Guide for CE 524: MeSH and NLM Classification, p 5. Roper, F., Boorkman, JA. Introduction to Reference Sources in the Health Sciences, p 20.

Objective 5

Statement of Objective

Choose appropriate classification numbers from the NLM and LC classification schedules based on current cataloging practice.

General Description

Every examinee should have a basic understanding of NLM's application of the NLM Classification system and be able to select both NLM and LC classification numbers for works in uncomplicated subjects. Every examinee should know when it is appropriate to choose LC numbers rather than NLM numbers. Every examinee should be able to select the appropriate NLM form numbers that are frequently used.

Content Limitations

Sources: Will be limited to the following:
1. J. Bradley, Hospital Library Management, 1983, Ch. 5
2. Handbook of Medical Library Practice, v. 2, 1983, Ch. 5-6
3. Course Guide for MLA CE 524: MeSH and NLM classification.
4. Introduction and preliminary pages of the National Library of Medicine classification, 4th ed., revised 1981.

Key Elements: Will include assigning NLM and LC classification numbers to works in uncomplicated subjects.

Item Format

Stimulus Attributes:

1. Each item will consist of a sample title page, followed by the question: "According to NLM policy, which is the best classification number to assign to this work?"

2. Each title page should contain all the information needed to make the right decision. Choose title pages that clearly reflect the subject matter of the work. The title page should be in English.

3. Additional preliminary pages (in addition to the title page), may be supplied if needed to further clarify the contents of the work.

Response Attributes:

1. Four or five responses will be given, each consisting of NLM and/or LC classification numbers. Photocopies of the appropriate pages of the NLM and/or LC classification schedules should be appended to the exam.

2. The pertinent subject index pages of the NLM and/or LC classification schedules may also be appended to the exam as part of the information supplied for each examinee. If these pages are supplied, all appropriate pages of the index should be included (i.e. sample classification numbers should have a matching index page if it exists.)

3. Only one current answer will be possible.

4. Distracters should make the examinee discriminate between the LC and NLM classification numbers. Both the LC and NLM classification numbers should be plausible for the item to be classified.

5. A distracter may be incorrect when any of the following conditions exist:

    a. failure to note that a classification number is reserved for a particular format (e.g. 13 is always used by NLM for dictionaries.)

    b. failure to correctly interpret a scope note given with a classification number (e.g. WO 162 has a "not" in italics which indicates that it is not the appropriate number for trade catalogues, but it is the appropriate number for surgical equipment.)

    c. failure to correctly interpret the index of the NLM classification schedule

6. Distracters should include a range of incorrect response types, (e.g. not all the errors should be centered around one form number.)

Criterion for Credit:
Credit will be given for the correct answer only.

Item Sample:

According to NLM policy, which is the best classification number to assign to this work? (Title page appended).

1. QC 244
2. QT 34
3. WB 289
4. WO 26
5. WO 240

(photocopies of classification pages and index appended)

Source: Course Guide for CE 524: MeSH and NLM Classification, p 36-37.

THE PRINCIPLES AND PRACTICE OF
Ultrasonography in Obstetrics and Gynecology

THIRD EDITION

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ACC APPLETON-CENTURY-CROFTS/Norwalk, Connecticut

  Pediatric see Pediatric Nursing   WY 159
  Psychiatric see Psychiatric Nursing   WY 160
  Religious orders   WY 145
  School see School Nursing   WY 113
  Specialties see Specialties, Nursing   WY 101–164
  Standards   WY 16
  Statistics   WY 31
  Surgical see Surgical Nursing   WY 161–162
  Surveys   WY 31
  Transportation nursing   WY 143
  Veterinary   SF 774.5
  See also names of diseases being treated or the specialty involved
Nursing Audit   WY 100.5
Nursing Care
  General   WY 100
  In special field   WY 150–164
Nursing Ethics see Ethics, Nursing   WY 85
Nursing Homes   WX 27–28
  Administration   WX 150
  Directories   WX 22
  For the aged   WT 27–28
    Directories   WT 22
  For other purposes, by specialty
Nursing Philosophy see Philosophy, Nursing   WY 86
Nursing Pools see Employment   WY 29, etc.; Nurses   WY 29, etc.
Nursing, Practical   WY 195
  Education   WY 18.8
Nursing, Private Duty   WY 127
  Education   WY 18
Nursing Processes   WY 100
  Specific activities, by subject
Nursing Records   WY 100.5
  See also Medical Records   WX 173, etc.
Nursing Service, Hospital   WY 125
  Administration   WY 105
Nursing Services   WY 100
Nursing Staff
  Of industry   WY 141
  Of schools   WY 113
Nursing Staff, Hospital   WY 125
  Administration   WY 105
Nursing, Supervisory   WY 105
  Of wards   WY 105
Nursing, Team   WY 125
  See also Patient Care Team   W 84.8, etc.
Nutrition
  And oral health   WU 113.7
  In animals see Animal Nutrition   SF 95–99
  In children see Child Nutrition   WS 115, etc.
  In health (General)   QU 145
  In infants see Infant Nutrition   WS 115–120
  In pregnancy   WQ 175
  In sickness (General)   WB 400
  Tables   QU 145
    For children   WS 16
  See also Diet   QT 235; Parenteral Feeding   WB 410; other particular topics
Nutrition Disorders   WD 100–175
  As a cause of disease   QZ 105
  In infancy & childhood   WS 115
  Children   WS 115; WS 130
  Infant see Infant Nutrition Disorders   WS 120, etc.
  Veterinary   SF 851
  See also Obesity   WD 210–212
Nutrition Surveys   QU 146
Nutritive Value   QU 145
Nuts
  Diets for control of fats   WB 425
  Diets for control of protein   WB 426
Nux Vomica see Strychnine   QV 103, etc.
Nyctalopia   WD 110
Nylon
  Chemical technology   TP 1180.P5
  Used for special purposes, by subject, e.g., in plastic surgery   WO 640
Nymphae see Vulva   WP 200
Nymphomania see Sex Deviation   WM 610
Nystagmus   WW 410

O

Oath, Hippocratic see Hippocratic Oath   W 50
Obesity   WD 210–212
Obesity in Diabetes   WK 835
Object Attachment   WM 460.5.02
• Object Relationship   WM 460.5.02
Obsessive-Compulsive Disorder   WM 176
Obstetrical Forceps   WQ 425
Obstetrical Nursing   WY 157
  Education   WY 18–18.5
  See also Postnatal Nursing   WY 157.3
Obstetricians, Directories see Directories   WQ 22 under Obstetrics
Obstetrics   WQ
  Anesthesia see Anesthesia, Obstetrical   WO 450
  Cardiac problems   WQ 244
  Directories   WQ 22
  Nursing see Obstetrical Nursing   WY 157, etc.
  Urology   WJ 190
    Complications   WQ 260.
• Obstetrics and Gynecology Department, Hospital see Hospital Departments   WQ 27–28, etc.
Obstruction, Intestinal see Intestinal Obstruction   WI 460, etc.
Occipital Lobe   WL 307
Occlusion see Dental Occlusion   WU 440
Occlusive Dressings   WO 167
Occult Blood   QY 160
Occultism
  Medical superstitions   WZ 309
Occupational Accidents see Accidents, Occupational   WA 485–491, etc.
Occupational Dermatitis   WR 600
Occupational Diseases   WA 400–495
  Medicolegal aspects   W 925
  Mental disorders (General)   WA 495
  Nursing see Industrial nursing   WY 141
  Ophthalmological   WW 505
  Prevention & control   WA 412–495
  See also Disability Evaluation   W 925, etc.; Workmen's Compensation   HD 7814–7817, etc.

ALWAYS CONSULT MAIN SCHEDULES. USE NUMBER ASSIGNED ONLY WHEN SUBJECT REPRESENTS MAJOR EMPHASIS OF WORK BEING CLASSIFIED

  - Drugs for see Antitubercular Agents QV 268, etc.
  - Genital see Tuberculosis, Female Genital WP 160, etc.; Tuberculosis, Male Genital WJ 700, etc.
  - In pregnancy WQ 256
  - Industrial WF 405
  - Laws WF 200
  - Nursing WY 163
  - *Oral WI 200
    - For the dentist WU 140
  - Skin see Tuberculosis, Cutaneous WR 245
  - Veterinary SF 808
    - See also Paratuberculosis SF 809.J6
  - Other localities, by site
  - See also Silicotuberculosis WF 654
- Tuberculosis, Avian SF 995.6.T8
- Tuberculosis, Bovine SF 967.T8
- Tuberculosis, Cardiovascular WG 100
  - Localized, by site
- Tuberculosis, Cutaneous WR 245
- Tuberculosis, Endocrine WK 100
  - Localized, by site
- Tuberculosis, Female Genital WP 160
  - Localized, by site
- Tuberculosis, Gastrointestinal WI 100
  - Localized, by site
- Tuberculosis, Hepatic WI 700
- Tuberculosis in Childhood WF 415
- Tuberculosis, Laryngeal WV 500
- Tuberculosis, Lymph Node WF 290
- Tuberculosis, Male Genital WJ 700
  - Localized, by site
- Tuberculosis, Meningeal WL 200
- Tuberculosis, Miliary WF 380
- Tuberculosis, Ocular WW 160
  - Localized, by site
- • Tuberculosis, Oral see Tuberculosis WI 200, etc.
- Tuberculosis, Osteoarticular WE 253
  - Localized, by site
- Tuberculosis, Peritoneal WI 575
- Tuberculosis, Pleural WF 390
- Tuberculosis, Pulmonary WF 300-360
  - Rehabilitation
    - At home WF 315
    - At hospital WF 330
- Tuberculosis, Renal WJ 351
- • Tuberculosis Societies WF 1
- Tuberculosis, Spinal WE 253
- Tuberculosis, Splenic WH 600
- Tuberculosis, Urogenital WJ 100
  - Localized, by site
- Tuberous Sclerosis QS 675
- Tubocurarine QV 140
- Tularemia WC 380
- Tumor Virus Infections QZ 200
- Tumors see Neoplasms QZ 200-380, etc.
- Tungsten
  - Inorganic chemistry QD 181.W1
  - Metabolism QU 130
  - Pharmacodynamics QV 290
- Tunica Vaginalis see Testis WJ 800, etc.
- Tunnel Anemia see Ancyclostomiasis WC 890
- Turbellaria QX 352
- Turbinates WV 301
- Turkeys
  - Culture SF 507
  - Diseases SF 995.4
- Turkish Baths see Baths WB 525, etc.
- Turner's Syndrome QS 677
- Turpentine QV 65
- Turtles QL 666.C5
  - Diseases SF 997.5.R4
- Twilight Sleep see Anesthesia, Obstetrical WO 450
- Twinning see Embryology QS 642, etc.
- Twins WQ 235
  - Embryology QS 642
  - Psychology WS 105.5.F2
- Twins, Conjoined QS 675
- Tympanic Membrane WV 225
- Tympanoplasty WV 225
- Tympanum see Ear, Middle WV 230-233
- Typhoid WC 270
- Typhoid Bacillus see Salmonella Typhi QW 138.5.S2
- Typhoid-Paratyphoid Vaccines
  - For paratyphoid WC 266
  - General and for typhoid WC 270
- Typhus, Endemic Flea-Borne WC 615
- Typhus, Epidemic Louse-Borne WC 605-610
- Typhus, Murine see Typhus, Endemic Flea-Borne WC 615
- Tyramine QV 174
- Tyrosine QU 60
- Tyrosine Aminotransferase QU 141
- Tyrothricin QV 350

U

- Ubiquinone QU 135
- Udder see Mammae SF 890, etc.
- Ulcer QZ 150
  - Corneal see Corneal Ulcer WW 220
  - Decubitus see Decubitus Ulcer WR 598
  - Duodenal see Duodenal Ulcer WI 370
  - Gastric see Stomach Ulcer WI 360
  - Leg see Leg Ulcer WE 850
  - Peptic see Peptic Ulcer WI 350-370
  - Skin see Skin Ulcer WR 598
  - Varicose see Varicose Ulcer WG 620
- Ulna WE 820
- Ulnar Nerve WL 400
  - See also names of organs innervated, e.g., Forearm WE 820
- Ultracentrifugation
  - Biological research QH 324.9.C4
  - Chemical engineering TP 159.C4
  - Chemical technics QD 54.C4
  - Clinical chemistry QY 90
  - See also Centrifugation QD 54.C4, etc.
- Ultrasonic Therapy WB 515
- Ultrasonics QC 244
  - Biophysics QT 34
  - Diagnostic use (General) WB 289
  - Used for other special purposes, by subject

Acoustics. Sound - Continued

228 Laboratories

Subarranged like Q183

.2 Technique

.3 Instruments and apparatus

.8 Handbooks, tables, formulas, etc.

229 Miscellany and curiosa

Special topics

231 Kinematics of vibrations and wave motion

233 Propagation of sound

Including velocity, reflection, transmission

Vibrations

235 Strings, rods, membranes, plates, tuning forks

241 Gases in tubes, etc. Resonance

Sound waves

243 General works, treatises, and textbooks

.2 Juvenile works

.3 Special topics, A-Z

.A4 Amplitude

.D3 Damping

.E5 Energy

.P7 Pressure of sound

.R3 Radiation pressure

.S3 Scattering

Transmission, see QC233

.5 Infrasonics

244 Ultrasonics

Cf. TA417.4, Ultrasonic testing

.5 Acoustic holography

246 Analysis of sounds. By phonograph. etc.

HEAT

Cf. QC220, Sound, light, and heat as a whole

For thermal properties of solids, see QC176.8.T4

251 Periodicals, societies, congresses, serial collections, yearbooks

.4 Collected works (nonserial)

252 History and philosophy

.2 Nomenclature, terminology, notation, abbreviations

253 Early works through 1800

General works, treatises, and advanced textbooks

254 1801-1969

.2 1970-

255 Elementary textbooks

256 Juvenile works

257 Addresses, essays, lectures

261 Study and teaching. Research

For programmed texts, see QC254-254.2

.5 Problems, exercises, examinations

263 Experiments

.5 Laboratory manuals

265 Technique

266 Handbooks, tables, formulas, etc.

267 Miscellany and curiosa

Thermometers and thermometry

Cf. GC177, Oceanographic instruments

QC902, Meteorological instruments

270 Periodicals, societies, congresses, serial collections, yearbooks

* 20.5 Research

Classify here works about research in general. Classify works about research on a particular subject, by subject.

21 Physical education as a profession

* 22 Directories (Table G)
* 22.1 General coverage (Not Table G)

Laboratories, institutes, etc.
23 Collective
24 Individual (Cutter from name of agency)

25 Laboratory manuals. Experimental physiology. Technic

* 26 Equipment and supplies

Classify catalogs here.

26.5 Computers. Automatic data processing

Cf. QT 18 Computer assisted instruction. Classify works on use for special subjects by subject.

Museums, exhibits, etc.
27 Collective
28 Individual (Cutter from name of museum, etc.)

* 32 Laws (Table G)
* 32.1 General coverage (Not Table G)

* 33 Discussion of law (Table G)
* 33.1 General coverage (Not Table G)

PHYSICS, MATHEMATICS, AND ENGINEERING AS APPLIED TO PHYSIOLOGICAL AND MEDICAL PHENOMENA

Include here general works only. Classify works on applications to specific problems by subject.

34 Biophysics. Biomedical engineering

Cf. WN Radiology

35 Biomedical mathematics

Cf. WA 950 Theory of medical statistics. Classify works for the biologist in QH 323.5.

120 Popular medicine (General)
e.g., Household medical books. Self medication
Example: Fishbein. Modern home medical adviser.

130 General works for laymen
Classify here books on general medicine written in style suitable for laymen. Example: Clark. Medicine on the march.

GENERAL DIAGNOSIS

141 General works
Cf. QY 4 General works on clinical pathology.
141.4 Health status

141.5 Differential diagnosis

142 Prognosis. Monitoring

143 Symptomatology

146 Asthenia. Cachexia. Fatigue

152 Chills. Fever

158 Dehydration. Edema

176 Pain

182 Syncope. Coma

200 Physical diagnosis (General)

205 Technique of physical examination

270 Temperature

275 Inspection. Palpation

278 Auscultation. Percussion

280 Blood pressure

282 **Pulse**

284 **Respiration**

288 **Diagnostic uses of non-ionizing radiation**

289 **Diagnostic uses of ultrasonics**

290 **Medical history taking**
Classify works on medical record libraries and hospital records in WX 173.

293 **Collections of clinical case reports**
Classify here miscellaneous collections. Classify case reports limited to one disease with disease.

THERAPEUTICS

300 **General works**

305 **Instructions or non-drug prescriptions for devices or therapy (General)**
Classify specific devices or therapies by subject.

310 **Palliative treatment. Terminal care**
Cf. WY 152 Nursing care of terminal patients.

320 **Rehabilitation of the disabled (General)**
Classify here works on physical and medical rehabilitation in general as well as those that include in addition educational, social, and vocational rehabilitation. Classify works on specific types, by type, e.g., Physical therapy WB 460. Classify works with no medical slant in HD 7255-7256.

325 **After care**
Cf. WM 29 for mental patients; WO 183 Postoperative care; WY 100 Nursing care.

330 **Drug therapy**
Cf. QV Pharmacology.

340 **Administration of medicine**

342 **Inhalation. Intranasal**

344 **Rectal**

WQ

OBSTETRICS

Classify works on obstetrics for nurses and obstetrical nursing in WY 157.

WQ 1–175	**General**
WQ 200–260	**Pregnancy**
WQ 300–330	**Labor**
WQ 400–450	**Obstetrical Surgery**
WQ 500–505	**Puerperium**

• 1 Societies (Cutter from name of society)
Includes ephemeral membership lists issued serially or separately. Classify substantial lists with directories. Classify annual reports, journals, etc., in W1.

Collections (General)
5 By several authors
7 By individual authors

9 Addresses. Essays. Lectures (General)

11 History (Table G)
11.1 General coverage (Not Table G)

13 Dictionaries. Encyclopedias

15 Classification. Nomenclature

16 Tables. Statistics

17 Atlases. Pictorial works
Classify atlases limited to a particular part of the system here also.

• 18 Education. Outlines. Questions and answers. Teachers' instructions. Catalogs and discussions of audiovisual material. Computer assisted instruction
Classify here works about education and audiovisual materials. Classify textbooks and actual audiovisual materials by subject.

• 19 Schools, departments, and faculties of obstetrics

* 20	**Research** *Classify here works about research in general. Classify works about research on a particular subject by subject.*
21	**Obstetrics as a profession**
* 22	**Directories (Table G)**
* 22.1	**General coverage (Not Table G)**
	Clinics, dispensaries, etc.
23	**Collective (Table G)**
23.1	**General coverage (Not Table G)**
24	**Individual (Table G)**
25	**Laboratory manuals. Technic**
26	**Equipment and supplies** *Classify catalogs in W 26.*
26.5	**Computers. Autonomic data processing** *Cf. WQ 18 Computer assisted instruction. Classify works on use for special subjects by subject.*
	Maternity hospitals
27	**Collective (Table G)**
27.1	**General coverage (Not Table G)**
28	**Individual (Table G)**
* 32	**Laws (Table G)**
* 32.1	**General coverage (Not Table G)**
* 33	**Discussion of law (Table G)**
* 33.1	**General coverage (Not Table G)**
100	**General works**
150	**Popular works on pregnancy and childbirth. Natural childbirth**
160	**Midwifery**
165	**Manuals for midwives**
175	**Prenatal care**

PREGNANCY

200 **General works**

202 **Diagnosis**
Cf. QY 335 Pregnancy tests.

205 **Fertilization. Conception. Development of ovum. General physiology of reproduction**

206 **Sex determination (Diagnostic)**

208 **Artificial insemination**

209 **Prenatal diagnosis. Fetal monitoring**

210 **Fetus. Fetal membranes. Umbilical cord (General). Perinatology**
Classify works on fetal experimentation in general in W 20.5.

210.5 **Fetal anatomy, physiology, and biochemistry**

211 **Fetal diseases (General or not indexed elsewhere)**

212 **Placenta**
Cf. WK 920 Placental hormones.

215 **Toxemias**
e.g., Eclampsia

220 **Ectopic pregnancy**

225 **Abortion. Fetal death**
Cf. WQ 440 Induced abortion; W 867 Criminal abortion.

235 **Multiple pregnancy**

240 **Pregnancy complications (General or not indexed elsewhere)**
Classify works on pregnancy toxemias in WQ 215.

244 **Cardiovascular complications**

248 **Diabetes**

252	Hematologic complications
256	Infectious diseases
260	Urologic complications

LABOR

300	General works
305	Physiology. Clinical course
307	Presentation
310	Difficult labor
320	Disproportions of the pelvis
330	Complications of labor e.g., Postpartum hemorrhage

OBSTETRICAL SURGERY

400	General works *Classify works on obstetrical anesthesia in WO 450.*
415	Delivery (including preparatory manipulation)
425	Use of forceps
430	Cesarean section. Symphysiotomy and similar technics
435	Embryotomy
440	Induction of labor. Therapeutic abortion. Technics of induced abortion *Classify works on sociological and religious aspects of induced abortion in HQ 767.*
450	Resuscitation of the newborn

PUERPERIUM

500	General works. Postnatal care
505	Puerperal infection

Objective 6

Statement of Objective

Choose appropriate subject headings and subheadings based on an understanding of MeSH vocabulary and the principles of application based on NLM's cataloging practices and policies.

General Description

Every examinee is expected to have a basic understanding of the MeSH Annotated Alphabetic List and how to interpret the entries found in it. Examinees are expected to assign main headings and all types of subheadings (i.e., topical, geographic, form, and language) from MeSH for materials in uncomplicated subjects.

Content Limitations

Sources: Will be limited to the following:
1. MeSH Annotated Alphabetic List
2. Course Guide for CE 524: MeSH and NLM Classification

Key Elements: Will include a choice of possible subject headings (including a combination of main headings and subheadings) from which the examinee would choose the one in the correct format according to NLM's application of MeSH vocabulary for cataloging practices.

Item Format

Stimulus Attributes:

1. Each item will consist of a hypothetical title of a book that is to have subject headings assigned to it, followed by two or three possible MeSH entries from the MeSH Annotated Alphabetic List . The MeSH entries will be followed by the question: "According to NLM's cataloging practices and policies, the correct subject heading is?"

2. The hypothetical title of the book should be descriptive enough for the examinee to make the correct choice.

3. The MeSH entries should include major and/or minor descriptors that have cataloging and/or indexing annotations that restrict the use of the descriptor in some way.

4. Each item will require the examinee to recognize and understand cataloging and indexing annotations.

Response Attributes:

1. Four or five alternative responses will be given, each consisting of subject headings (including subheadings if appropriate) found in the current edition of the MeSH Annotated Alphabetic List .

2. Only one correct answer will be possible.

3. A distracter may be incorrect when any of the following conditions exist:

    1. an inappropriate subheading is used with a main heading;

    2. a minor descriptor is used rather than a major descriptor;

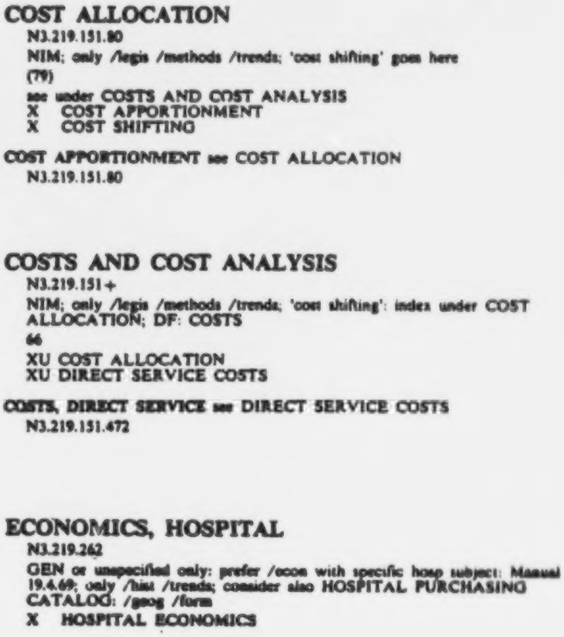
    3. a subheading is used with a minor descriptor;

    4. an allowable subheading is used with a major descriptor, but NLM cataloging practices do not permit the use.

Criterion for Credit:
Credit will be given for the correct answer only.

Item Sample:

You are cataloging the book titled Relative Costs of Home Care and Hospital Care in Australia. You note the following entries in the MeSH Annotated Alphabetic List :



COST ALLOCATION
N3.219.151.80
NIM; only /legis /methods /trends; 'cost shifting' goes here
(79)
see under COSTS AND COST ANALYSIS
X COST APPORTIONMENT
X COST SHIFTING

COST APPORTIONMENT see COST ALLOCATION
N3.219.151.80

COSTS AND COST ANALYSIS
N3.219.151+
NIM; only /legis /methods /trends; 'cost shifting': index under COST ALLOCATION; DF: COSTS
66
XU COST ALLOCATION
XU DIRECT SERVICE COSTS

COSTS, DIRECT SERVICE see DIRECT SERVICE COSTS
N3.219.151.472

ECONOMICS, HOSPITAL
N3.219.262
GEN or unspecified only: prefer /econ with specific hosp subject: Manual 19.4.69; only /hist /trends; consider also HOSPITAL PURCHASING
CATALOG: /geog /form
X HOSPITAL ECONOMICS

According to NLM's cataloging practices and policies, the correct subject heading is?"

1. Cost Allocation
2. Cost Allocation -- trends
3. Costs and costs analysis -- Australia
4. Hospital Economics - Australia
5. Economics, Hospital -- Australia

Source: Course Guide for CE 524: MeSH and NLM Classification, p. 10-17.

file: techservobject6
PD 25.5.2

100

APPENDIX IV

Performance Objectives in Health Sciences Librarianship Area of Concentration Examinations

Public Services

1. Select specific reference works or online sources in the health sciences for specific information needs or problems.

2. Employ advanced searching techniques and strategies for searching selected online databases.

3. Determine the appropriate subject headings and subheadings based on an understanding of MeSH vocabulary and the principles of application for information retrieval.

4. Interpret the elements of a collection development policy in order to select or weed materials in a health sciences library.

5. Select appropriate mechanisms to measure collection strengths and weaknesses.

Technical Services

1. Interpret the elements of a collection development policy in order to select or weed materials in a health sciences library.

2. Select appropriate mechanisms to measure collection strengths and weaknesses.

3. Select appropriate online and print sources for bibliographic verification of health sciences materials in all formats.

4. Select appropriate cataloging tools and both online and print sources of bibliographic information for descriptive cataloging or classification information.

5. Determine the appropriate NLM or LC classification number based on current cataloging practice for a wide variety of materials, such as, monographs, covering multi-faceted subjects, serials, or audiovisuals.

6. Identify and describe NLM's application of descriptive cataloging codes.

7. Choose appropriate subject headings and subheadings based on an understanding of MeSH vocabulary and the principles of application of NLM's cataloging practices and policies.

8. Determine the most economic and prompt method for ordering health sciences library material.

Hospital Library

1. Select specific reference works or online sources in the health sciences for specific information needs or problems.
2. Determine the appropriate subject headings and subheadings based on an understanding of MeSH vocabulary and the principles of application for information retrieval.
3. Interpret the elements of a collection development policy in order to select or weed materials in a health sciences library.
4. Select appropriate mechanisms to measure collection strengths and weaknesses.
5. Identify principles of effective management in hospital library services.
6. Understand principles and practices in the effective utilization of hospital library facilities and space.
7. Comprehend principles and concepts of effective financial resource management in hospital libraries.

APPENDIX V
ITEM MODELS

AREA OF CONCENTRATION EXAMINATION
PUBLIC SERVICES

Objective 1

Statement of Objective

Select specific reference works or online sources in the health sciences for specific information needs or problems.

General Description

The examinee must exhibit a depth of knowledge of specific print and online sources, including their scope, coverage, content, arrangement, and access points. This will also include a knowledge of the less frequently used print and online sources.

Content Limitations

Sources: The examinee will be responsible for knowing the content of sources listed in:

1. Roper, F. and Boorkman, J.A. Introduction to Reference Sources in the Health Sciences. 2nd ed. Chicago: MLA, 1984.
2. Bradley, J. Hospital Library Management. Chicago: MLA, 1983. Chapter 8
3. Handbook of Medical Library Practice. 4th ed. Chicago: MLA, 1982. vol. 1, chapters 5 & 6

Key Elements:

1. Specific information need or problem
2. Specific print or online resources
3. Scope, coverage, content, arrangement, access points of specific print and online resources

Item Format

Stimulus Attributes:

1. The stem presents the information problem or need, followed by the question: "Which of the following sources is [most/least] likely to answer this question?" or "Which of the following is [most/least] [efficient/quick]?"

2. Each item will require selection of a specific print or online resource which is the most/least appropriate to answer the question based on knowledge of scope, coverage, content, arrangement, and access points.

Response Attributes:

1. Four or five alternative responses will be given.

2. Each response will consist of the complete title of a work or the author's last name and the complete title of the work, depending on how it is best known. All of the alternative will be titles from sources listed under content limitations.

3. Only one correct answer will be possible. The other alternatives may meet part of the stimulus but not all of it.

4. An incorrect response may have a title which suggests that it is the correct answer without in fact being the correct answer.

5. An incorrect response may include related information but not meet the condition "most/least" required in the stem.

Criterion for Credit:
Credit will be given for the correct answer only.

Item Sample 1:

A physician is seeking information on family planning practices in India and China. Which of the following sources is most likely to answer this question?

1. EMBASE
2. DIRLINE
3. BIOSIS Previews
4. POPLINE

Source: Roper, F. and Boorkman, J.A. Introduction to Reference Sources in the Health Sciences. 2nd ed. Chicago: MLA, 1984, p. 75.
NLM Online Services Reference Manual 2.4.1, 2.4.2

Item Sample 2:

A physician has come to you asking for information on the interactions of two drugs. Which of the following is least likely to answer this question?

1. Evaluations of Drug Interactions
2. Hansten's Drug Interactions
3. Martindale: The Extra Pharmacopoeia
4. The Merck Index: An Encyclopedia of Chemicals, Drugs and Biologicals

Source: Roper, F. and Boorkman, J.A. Introduction to Reference Sources in the Health Sciences. 2nd ed. Chicago: MLA, 1984, p. 130.

AREA OF CONCENTRATION EXAMINATION
PUBLIC SERVICES

Objective 2

Statement of the Objective

Employ advanced searching techniques and strategies for searching selected online databases.

General Description

Each examinee is expected to employ advanced searching techniques and strategies for searching online databases. The databases each examinee is expected to know include: EMBASE, PSYCINFO, BIOSIS, CHEMICAL ABSTRACTS ONLINE, CINAHL, MEDLINE, TOXNET, PDQ, and CANCERLINE. Vendors include: Dialog, BRS, STN, and NLM

Content Limitations

Sources:

1. BRS Search System User's Manual
2. Dialog System Reference Manual
3. EMBASE Training Program I and II (course syllabi)
4. Search Guide: BIOSIS Previews Edition
5. PsycInfo User's Reference Manual
6. DIALOG Blue Sheets
7. BRS White Pages
8. NLM Online Service Reference Manual

Key elements:

1. Information request upon which to base search strategy and techniques
2. Name of the database vendor to be searched
3. Name of the database to be searched
4. Boolean logic, unit record structure, controlled vocabularies (database thesauri), controlled vs. natural language searching

Item Format

Stimulus Attributes:

1. Each item will describe an information need or request which may be satisfied through a search on an online bibliographic retrieval system. The item will conclude with the question: "Which search strategy will recall the [greatest/least] number of relevant citations"?

2. Each item sill require the selection of the appropriate response based upon knowledge of the database and database vendor specified in the stem. This means knowledge of the following: search software mechanics, controlled vocabulary, Boolean logic, and unit record structure.

3. Specifics about the controlled vocabulary for that database may or may not also be given.

Response Attributes:

1. Four or five responses will be given.

2. Each response will consist of either controlled approaches combined with Boolean operators; or natural language approaches combined with Boolean operators; or a combination of natural language and controlled vocabulary with Boolean operators.

3. A response may be incorrect due to: inappropriate interpretation of database controlled vocabulary; a lack of search logic; or inappropriate level of comprehensiveness. (i.e. too may irrelevant or too few relevant citations.)

4. The correct response will satisfy the need, demonstrate search logic, use the specified database's controlled vocabulary, and result in the appropriate level of comprehensiveness.

Criterion for Credit:

Credit will be given for the correct answer only.

Item Sample:

A resident prescribes propranolol to treat a hypertensive elderly patient and wonders about the effects. You search EMBASE using DIALOG. In looking up the EMCLAS. EMTAGS and Malimet descriptors you find:

A. Propranolol and Hypertension are descriptors.
B. EMCLASS codes: 37.10.2 Antihypertensive Drugs; 18.13.2. Clinical Hypertension; 20.5.3 Hypertension
C. EMTAGS: 19 Aged; 920 Cardiovascular System; 160 Treatment

Given this information, which search strategy would recall the greatest number of relevant articles?

1. SS Propranolol/DE and SH=037.10.02? and SH=018.13.02? and SH=020.05.03?
2. Propranolol.DE. and 037.10.02#.CC. and 018.13.02#.CC. and 020.05.03#.CC.
3. Propranolol.DE. and Hypertension.DE. and 0019.II. and 0160.II.
4. SS Propranolol/DE and Hypertension/DE and TC=0019 and TC=0160

Source: Excerpta Medica Training Program I, 1983, p62. (course syllabus)

Item Sample 2:

You are trying to locate information on kidney stones, but you are not sure how kidney stones are indexed in MEDLINE. You do the search using the NLM system. Which search strategy would recall the greatest number of relevant articles?

1. kidney adj stone$1
2. ss kidney(w)stone?
3. all kidney stone#
4. (tw) kidney and stone#

Source: NLM Online Services Reference Manual, 7.4.3

Objective 3

Statement of Objective

Determine the appropriate subject headings and subheadings based on an understanding of MeSH vocabulary and the principles of application for information retrieval.

General Description

Every examinee is expected to be able to interpret entries in the MeSH Annotated Alphabetic List and determine which main headings and subheadings should be used when searching Index Medicus, MEDLINE, or the card catalog. Examinees should be able to interpret MeSH scope notes, cross references, dates and cataloging and indexing annotations, and be familiar with NLM's cataloging practices and policies in the use of MeSH.

Contents Limitations

Sources: Will be limited to the following:

1. Front matter of the MeSH Annotated Alphabetic List and Index Medicus
2. Course guide for CE 524: MeSH and NLM Classification
3. Feinglos, S. MEDLINE: a basic guide to searching, 1985.
4. Roper, F., Boorkman, J.A., Introduction to Reference Sources in the Health Sciences, 1984.

Key Elements: Will include the assignment of main headings and all types of subheadings (i.e., topical, geographic, form, language) according to NLM's cataloging practices for creation of entries in a card catalog; the choice of headings and subheadings used to search MEDLINE or the printed Index Medicus; the interpretation of MeSH notes and other annotations.

Item Format 1

Stimulus Attributes:

1. The stem presents a searching situation for the printed Index Medicus or for MEDLINE, followed by the statement: "The MeSH Annotated Alphabetic List contains the following entry (entries):"

2. The complete entry from MeSH including scope notes, cross references, dates and other annotations are presented.

3. The examinee is asked: "Based on this entry (these entries), which of the following statements is true (false) for searching [name appropriate source, i.e., printed Index Medicus, MEDLINE]?"

Response Attributes:

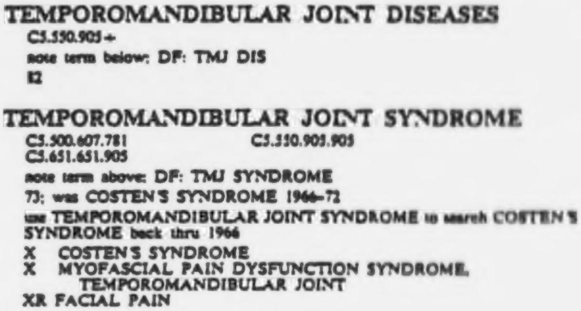
1. Four or five alternative responses will be given each relating to the MeSH entries given in the stem.
2. All responses will be superficially plausible; none will be obviously irrelevant to the marginally informed examinee.
3. A response may be incorrect due to: inappropriate interpretation of content notes, searching notes, date, or cross reference structure.
4. Only one correct answer will be possible.

Criterion for Credit:

Credit will be given for the correct answer only.

Item Sample 1:

You are searching the printed Index Medicus for references on the topic of temporomandibular joint syndrome from 1966 to the present. The MeSH Annotated Alphabetic List contains the following entries:



TEMPOROMANDIBULAR JOINT DISEASES
C5.550.905+
note term below; DF: TMJ DIS
82

TEMPOROMANDIBULAR JOINT SYNDROME
C5.500.607.781 C5.550.905.905
C5.651.651.905
note term above: DF: TMJ SYNDROME
73; was COSTEN'S SYNDROME 1966-72
use TEMPOROMANDIBULAR JOINT SYNDROME to search COSTEN'S SYNDROME back thru 1966
X COSTEN'S SYNDROME
X MYOFASCIAL PAIN DYSFUNCTION SYNDROME, TEMPOROMANDIBULAR JOINT
XR FACIAL PAIN

Based on these entries, which of the following statements is true for searching the printed Index Medicus?

1. COSTEN'S SYNDROME is a "see" reference to TEMPOROMANDIBULAR JOINT DISEASES
2. TEMPOROMANDIBULAR JOINT SYNDROME is searchable back through 1966
3. The data form abbreviation TMJ DIS is searchable
4. The data form abbreviation TMJ SYNDROME is searchable
5. COSTEN'S SYNDROME should be used from 1966 to 1972

Source: Preliminary pages of the MeSH Annotated Alphabetic List.

Item Sample 2:

You are searching in MEDLINE for references on the topic of temporomandibular joint syndrome from 1966 to the present. The MeSH Annotated Alphabetic List contains the following entries:

TEMPOROMANDIBULAR JOINT DISEASES
C5.550.905 +
note term below: DF: TMJ DIS
82

TEMPOROMANDIBULAR JOINT SYNDROME
C5.500.607.781 C5.550.905.905
C5.651.651.905
note term above: DF: TMJ SYNDROME
73; was COSTEN'S SYNDROME 1966-72
use TEMPOROMANDIBULAR JOINT SYNDROME to search COSTEN'S SYNDROME back thru 1966
X COSTEN'S SYNDROME
X MYOFASCIAL PAIN DYSFUNCTION SYNDROME, TEMPOROMANDIBULAR JOINT
XR FACIAL PAIN

Based on these entries, which of the following statements is false for searching MEDLINE?

1. COSTEN'S SYNDROME is a "see" reference to TEMPOROMANDIBULA JOINT SYNDROME
2. TEMPOROMANDIBULAR JOINT SYNDROME is searchable back through 1966
3. The data form abbreviation TMJ DIS is searchable
4. The data form abbreviation TMJ SYNDROME is searchable
5. COSTEN'S SYNDROME should be used from 1966 to 1972

Source: Preliminary pages of the MeSH Annotated Alphabetic List.

Item Format 2

Stimulus Attributes:

1. The stem presents a searching situation for the card catalog followed by the statement: "The MeSH Annotated Alphabetic List contains the following entry (entries):".

2. The complete entry from MeSH including scope notes, cross references, dates, and other annotations are presented.

3. The examinee is asked: "Based on this entry (these entries), which of the following entries would you expect to find (not find) in the card catalog?"

Response Attributes:

1. Four or five alternative responses will be given each relating to the MeSH entries given in the stem.

2. All responses will be superficially plausible; none will be obviously irrelevant to the marginally informed examinee.

3. A response may be incorrect when any of the following conditions exist:
   a) an inappropriate subheading is used with a main heading
   b) a minor descriptor is used, with or without a subheading, for an entry in the card catalog
   c) an incorrect combination of subheadings are used with a main heading for a card catalog entry
   d) a content note, indexing or cataloging note, dates, or cross references are interpreted incorrectly

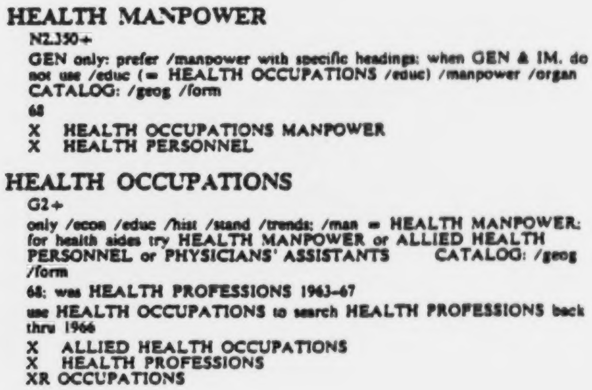
4. Only one correct answer will be possible.

Criterion for Credit:

Credit will be given for the correct answer only.

Item Sample:

You are searching in your card catalog for books on the subject of statistical information of health occupations. The MeSH Annotated Alphabetic List contains the following entries:



HEALTH MANPOWER
N2.350+
GEN only: prefer /manpower with specific headings: when GEN & IM. do not use /educ (= HEALTH OCCUPATIONS /educ) /manpower /organ CATALOG: /geog /form
68
X HEALTH OCCUPATIONS MANPOWER
X HEALTH PERSONNEL

HEALTH OCCUPATIONS
G2+
only /econ /educ /hist /stand /trends: /man = HEALTH MANPOWER: for health aides try HEALTH MANPOWER or ALLIED HEALTH PERSONNEL or PHYSICIANS' ASSISTANTS CATALOG: /geog /form
68; was HEALTH PROFESSIONS 1963-67
use HEALTH OCCUPATIONS to search HEALTH PROFESSIONS back thru 1966
X ALLIED HEALTH OCCUPATIONS
X HEALTH PROFESSIONS
XR OCCUPATIONS

Based on these entries, which of the following entries would you not expect to find in the card catalog?

1. Health Manpower -- statistics
2. Health Manpower -- U.S. -- statistics
3. Health Occupations -- trends -- statistics
4. Health Occupations -- U.S. -- statistics
5. Health Occupations -- manpower -- statistics

Source: Course guide for CE 524: MeSH and NLM Classification, p. 12-19.

Item Format 3

Stimulus Attributes:

1. The stem presents a searching situation for the printed Index Medicus or for MEDLINE, followed by the statement: "The MeSH Annotated Alphabetic List contains the following entry (entries):".

2. The complete entry from MeSH including scope notes, cross references, dates and other annotations are presented.

3. The examinee is asked: "Based on this entry (these entries), which of the following entries would you expect to find (not find) in [name appropriate source, i.e., MEDLINE, printed Index Medicus)?

Response Attributes:

1. Four or five alternative responses will be given each relating to the MeSH entries given in the stem.

2. All responses will be superficially plausible; none will be obviously irrelevant to the marginally informed examinee.

3. A response may be incorrect due to: inappropriate interpretation of content notes, searching notes, date, cross reference structure, or main heading/subheading combination.

4. Only one correct answer will be possible.

Criterion for Credit:

Credit will be given for the correct answer only.

Item Sample:

You are searching in the printed Index Medicus for references on the topic of statistical information of health occupations. The MeSH Annotated Alphabetic List contains the following entries:

HEALTH MANPOWER
N2.350+
GEN only: prefer /manpower with specific headings: when GEN & IM, do not use /educ (= HEALTH OCCUPATIONS /educ) /manpower /organ
CATALOG: /geog /form
68
X HEALTH OCCUPATIONS MANPOWER
X HEALTH PERSONNEL

HEALTH OCCUPATIONS
G2+
only /econ /educ /hist /stand /trends: /man = HEALTH MANPOWER: for health aides try HEALTH MANPOWER or ALLIED HEALTH PERSONNEL or PHYSICIANS' ASSISTANTS CATALOG: /geog /form
68; was HEALTH PROFESSIONS 1963-67
use HEALTH OCCUPATIONS to search HEALTH PROFESSIONS back thru 1966
X ALLIED HEALTH OCCUPATIONS
X HEALTH PROFESSIONS
XR OCCUPATIONS

Based on these entries, which of the following entries would you expect to find in the printed Index Medicus?

1. HEALTH MANPOWER / statistics
2. HEALTH OCCUPATIONS / statistics
3. HEALTH OCCUPATIONS / manpower
4. HEALTH OCCUPATIONS / supply & distribution
5. HEALTH MANPOWER / supply & distribution

Source: Preliminary pages of the MeSH Annotated Alphabetic List.

AREA OF CONCENTRATION EXAMINATION
PUBLIC SERVICES

Objective 4

Statement of Objective

Interpret the elements of a collection development policy in order to select or weed materials in a health sciences library.

General Description

Every examinee should be able to compare and weigh the importance of the various elements of a collection development policy for making selection and de-selection decisions. The examinee is expected to apply selection criteria for all types of health sciences library materials, including such formats as monographs, serials, audiovisual software, and computer software.

Content Limitations

Sources: Will be limited to the following:

1. Roper, F. and Boorkman, J.A. Introduction to Reference Sources in the Health Sciences. 2nd ed. Chicago: MLA, 1984. chapter 11
2. Bradley, J. Hospital Library Management. Chicago: MLA, 1983. chapters 3 & 10
3. Handbook of Medical Library Practice. 4th ed. Chicago: MLA, 1982. vol. 2, chapter 2
4. Course Guide for CE 112: Collection Development

Key Elements: Will include elements commonly found in collection development policies, such as definitions of terms, description of user population, scope and coverage by subject, and guidelines regarding format, type of material, price, user demand, date of publication, language, multiple copies, replacements, retention and withdrawals. More difficult areas of selection will be addressed, including gifts, exchange, cooperative agreements with other libraries, etc.

Item Format 1

Stimulus Attributes:

1. The stem reproduces 3 or more elements of a collection development policy that influence selection decisions, such as a description of a specific user group, scope and coverage of a subject, exclusion of a format, limitation by publication date, a policy on multiple copies, limitation by price, or a cooperative agreement with other libraries.

2. The stem concludes with a question in the following format: "Based on these criteria, which of the following titles would you select [first/last] to [add to/weed from] your collection?"

3. Each question will require weighing the relation of the different parts of the collection policy in making title-specific decisions.

Response Attributes:

1. Four or five responses will be listed, each describing a real or hypothetical title and including enough information to allow the examinee to make a selection decision, such as author, title, place, publisher, date, price, evidence of demand, etc.

2. None of the responses will meet all of the criteria for selection.

3. Every incorrect response will meet at least one of the criteria.

4. The correct response will meet more of the criteria than any other response.

Criteria for Credit

Credit will be given for the correct answer only.

Item Sample:

Your collection policy includes, among others, the following statements:

- Materials in Cardiology, Orthopedics, and Pediatrics will be collected at the research level.
- Monographs are usually purchased within 3 years of publication date. Older monographs are seldom acquired.
- Clinical monographs published in countries other than the United States, Great Britain, and Canada are rarely acquired.
- Monographs that have been requested on interlibrary loan or recommended by users, and are on clinical medical subjects, are seriously considered for purchase.

Based on these criteria, which of the following titles would you select first to add to your collection?

1. McCarver, Timothy. Interpreting heart sounds. Geneva : World Health Organization, 1982.
2. Fuller, Michael, ed. Iatrogenic infections. Sydney, NSW : Collins, 1985.
3. Leahy, Donald. Surgical treatment of penetrating wounds. Boston : Little Brown, 1981.
4. Weisman, Gregor. Differential diagnosis. Copenhagen : Munksgaard, 1982. (Recommended by Cardiology resident).
5. Carlson, David. Communicable diseases in childhood. New York : Academic Press, 1983. (Requested on interlibrary loan).

Source: Bradley, J. Hospital Library Management. Chicago: MLA, 1983. p. 32-33.

Item Format 2

Stimulus Attributes:

1. The stem presents one or more elements of a collection development policy that influence selection decisions, such as a description of a specific user group, scope and coverage of a subject, exclusion of a format, limitation by publication date, a policy on multiple copies, limitation by price, or a cooperative agreement with other libraries.

2. The stem then describes a title being considered for purchase, including information relating to the collection development policy elements described above and other information that may affect interpretation of the elements.

3. The stem may also present an environmental situation, such as "your library has a very limited budget this year" or "you have just been given a donation of x dollars to purchase materials."

4. The examinee is then asked: "Based on the selection criteria listed above, which one of the following purchase decisions will you make?"

5. Each item will require weighing the different parts of the collection policy in making title-specific decisions.

Response Attributes:

1. Four or five responses will be listed, each consisting of one of the following purchase decisions:
   a) Do not purchase
   b) Purchase at a later time
   c) Purchase now

2. Each response will also include a reason for the decision, such as:
   a) easily available elsewhere
   b) too expensive
   c) low priority addition to the collection
   d) it was a recommendation
   e) it has never been requested on interlibrary loan
   f) it will be used frequently
   g) our collection already has sufficient materials in this area

3. Each response should force the examinee to discriminate among the selection criteria.

4. A response may be incorrect because it represents an incorrect purchase decision.

5. A response may be incorrect because it includes an inappropriate reason for the purchase decision.

6. Only the correct response will represent the correct decision and the most appropriate reason for the decision.

Criteria for Credit

Credit will be given for the correct answer only.

Item Sample:

Your collection policy states (in part):

- Materials that cost more than $100 are rarely acquired without evidence of need.
- Materials that are readily available on interlibrary loan are rarely acquired without evidence of need.

You are considering purchasing an audiovisual entitled The Human Brain. In evaluating the title you have noted the following information:

Date of Publication	1986
Format	16 mm film
Producer	American Medical Association
Audience	adult, health professionals
Production quality	excellent
Price	$300
Availability other than by purchase	Available on loan from a library in a neighboring region
Potential use	6 times per year, by 3 or more departments
Related items in collection	one 16 mm film, 8 years old, fair quality, used 5 times last year
User requests	Recommended by the chairman of the Department of Neurology

You have a very limited budget this year. Which one of the following purchase decisions will you make?

1. Do not purchase; easily available elsewhere
2. Do not purchase; too expensive
3. Purchase later; your collection already has sufficient materials in this area
4. Purchase now; it was recommended

Source: Bradley, J. Hospital Library Management. Chicago: MLA, 1983, p. 171.

AREA OF CONCENTRATION EXAMINATION
PUBLIC SERVICES

Objective 5

Statement of Objective

Select appropriate mechanisms to measure collection strengths and weaknesses.

General Description

Every examinee should be able to recognize evaluation aids and mechanisms for measuring collection strengths and weaknesses as well as be able to point out the advantages or disadvantages of various techniques used in assessing health sciences collections.

Content Limitations

Sources: Will be limited to the following:

1. Roper, F. and Boorkman, J.A. Introduction to Reference Sources in the Health Sciences. 2nd ed. Chicago: MLA, 1984. chapter 11
2. Bradley, J. Hospital Library Management. Chicago: MLA, 1983.
3. Handbook of Medical Library Practice. 4th ed. Chicago: MLA, 1982. vol. 2
4. Course Guide for CE 112: Collection Development

Key Elements: Will include examination of collections in terms of quantity, quality, or use, plus the advantages and disadvantages of the various techniques for collection evaluation.

Item Format 1

Stimulus Attributes:

1. The stem describes a problem or need that requires an evaluation of all or part of the collection and identifies an evaluation technique to be used, such as user surveys, circulation counts, consultant review, etc. The description is followed by a question in the following format: "Which of the following is [an advantage/a disadvantage] of using that evaluation technique in this situation?"

2. Each item will require recognizing an advantage or disadvantage of a specified evaluation technique.

Response Attributes:

1. Four or five responses will be listed.
2. Each response will be plausible as an advantage or disadvantage of an evaluation technique.
3. A response may be incorrect because it is [an advantage/a disadvantage] of some other evaluation technique.
4. A response may be incorrect because it is an advantage of the technique when a disadvantage is sought, or vice versa.
5. A response may be incorrect because it accurately describes the technique but is neither an advantage nor a disadvantage.
6. A response may be incorrect because it is a false statement.
7. Only the correct answer will be [an advantage/a disadvantage] of the specified evaluation technique.

Criteria for Credit

Credit will be given for the correct answer only.

Item Sample:

You want to evaluate your study-level collection in nutrition and have decided to compare your holdings to an authoritative nutrition bibliography. Which of the following is a disadvantage of using that evaluation technique in this situation?

1. The technique is based on the assumption that there is a relationship between the size of the collection and its ability to respond to user needs.
2. Comparing holdings to an external standard is not a method of determining quality.
3. Extensive studies of this nature are most effectively pursued with the use of sampling techniques.
4. Study-level collections are best judged by client-centered techniques, such as usage studies.

Source: Handbook of Medical Library Practice. 4th ed. Chicago: MLA, 1982. vol. 2, p. 73-77.

Item Format 2

Stimulus attributes:

1. The stem describes a problem or need that requires an evaluation of all or part of the collection, followed by a question in the following format: "Which of the following techniques is the [most/least] appropriate for evaluating a collection in this situation?"

2. Each question will require selecting the [most/least] appropriate evaluation technique.

Response attributes:

1. Four or five responses will be listed, each of which will be a technique for evaluation, such as user surveys, circulation counts, reshelve tallies, etc.

2. A response may be incorrect because it does not provide information relevant to the stated need.

3. A response may be incorrect because it does not provide as reliable a measure as the correct response.

4. Only the correct answer will give reliable information that is relevant to the stated need.

Criteria for Credit

Credit will be given for the correct answer only.

Item Sample:

The medical school that your library serves is adding a new nutrition component to its curriculum. Nutrition has not been emphasized before and so has been collected very selectively. You want to evaluate your holdings in nutrition to estimate the amount of extra funds to request. Which of the following techniques is the least appropriate for evaluating a collection in this situation?

1. Assessment by a subject consultant
2. Comparing holdings to an authoritative bibliography
3. Counting the number of books and journals in the subject.
4. Analyzing circulation statistics.

Source: Handbook of Medical Library Practice. 4th ed. Chicago: MLA, 1982. vol. 2, p. 73-77.

AREA OF CONCENTRATION EXAMINATION
TECHNICAL SERVICES

Objective 1

Statement of Objective

Interpret the elements of a collection development policy in order to select or weed materials in a health sciences library.

General Description

Every examinee should be able to compare and weigh the importance of the various elements of a collection development policy for making selection and de-selection decisions. The examinee is expected to apply selection criteria for all types of health sciences library materials, including such formats as monographs, serials, audiovisual software, and computer software.

Content Limitations

Sources: Will be limited to the following:

1. Roper, F. and Boorkman, J.A. Introduction to Reference Sources in the Health Sciences. 2nd ed. Chicago: MLA, 1984. chapter 11
2. Bradley, J. Hospital Library Management. Chicago: MLA, 1983. chapters 3 & 10
3. Handbook of Medical Library Practice. 4th ed. Chicago: MLA, 1982. vol. 2, chapter 2
4. Course Guide for CE 112: Collection Development

Key Elements: Will include elements commonly found in collection development policies, such as definitions of terms, description of user population, scope and coverage by subject, and guidelines regarding format, type of material, price, user demand, date of publication, language, multiple copies, replacements, retention and withdrawals. More difficult areas of selection will be addressed, including gifts, exchange, cooperative agreements with other libraries, etc.

Item Format 1

Stimulus Attributes:

1. The stem reproduces 3 or more elements of a collection development policy that influence selection decisions, such as a description of a specific user group, scope and coverage of a subject, exclusion of a format, limitation by publication date, a policy on multiple copies, limitation by price, or a cooperative agreement with other libraries.

2. The stem concludes with a question in the following format: "Based on these criteria, which of the following titles would you select [first/last] to [add to/weed from] your collection?"

3. Each question will require weighing the relation of the different parts of the collection policy in making title-specific decisions.

Response Attributes:

1. Four or five responses will be listed, each describing a real or hypothetical title and including enough information to allow the examinee to make a selection decision, such as author, title, place, publisher, date, price, evidence of demand, etc.

2. None of the responses will meet all of the criteria for selection.

3. Every incorrect response will meet at least one of the criteria.

4. The correct response will meet more of the criteria than any other response.

Criteria for Credit

Credit will be given for the correct answer only.

Item Sample:

Your collection policy includes, among others, the following statements:

- Materials in Cardiology, Orthopedics, and Pediatrics will be collected at the research level.
- Monographs are usually purchased within 3 years of publication date. Older monographs are seldom acquired.
- Clinical monographs published in countries other than the United States, Great Britain, and Canada are rarely acquired.
- Monographs that have been requested on interlibrary loan or recommended by users, and are on clinical medical subjects, are seriously considered for purchase.

Based on these criteria, which of the following titles would you select first to add to your collection?

1. McCarver, Timothy. Interpreting heart sounds. Geneva : World Health Organization, 1982.
2. Fuller, Michael, ed. Iatrogenic infections. Sydney, NSW : Collins, 1985.
3. Leahy, Donald. Surgical treatment of penetrating wounds. Boston : Little Brown, 1981.
4. Weisman, Gregor. Differential diagnosis. Copenhagen : Munksgaard, 1982. (Recommended by Cardiology resident).
5. Carlson, David. Communicable diseases in childhood. New York : Academic Press, 1983. (Requested on interlibrary loan).

Source: Bradley, J. Hospital Library Management. Chicago: MLA, 1983. p. 32-33.

Item Format 2

Stimulus Attributes:

1. The stem presents one or more elements of a collection development policy that influence selection decisions, such as a description of a specific user group, scope and coverage of a subject, exclusion of a format, limitation by publication date, a policy on multiple copies, limitation by price, or a cooperative agreement with other libraries.

2. The stem then describes a title being considered for purchase, including information relating to the collection development policy elements described above and other information that may affect interpretation of the elements.

3. The stem may also present an environmental situation, such as "your library has a very limited budget this year" or "you have just been given a donation of x dollars to purchase materials."

4. The examinee is then asked: "Based on the selection criteria listed above, which one of the following purchase decisions will you make?"

5. Each item will require weighing the different parts of the collection policy in making title-specific decisions.

Response Attributes:

1. Four or five responses will be listed, each consisting of one of the following purchase decisions:
   a) Do not purchase
   b) Purchase at a later time
   c) Purchase now

2. Each response will also include a reason for the decision, such as:
   a) easily available elsewhere
   b) too expensive
   c) low priority addition to the collection
   d) it was a recommendation
   e) it has never been requested on interlibrary loan
   f) it will be used frequently
   g) your collection already has sufficient materials in this area

3. Each response should force the examinee to discriminate among the selection criteria.

4. A response may be incorrect because it represents an incorrect purchase decision.

5. A response may be incorrect because it includes an inappropriate reason for the purchase decision.

6. Only the correct response will represent the correct decision and the most appropriate reason for the decision.

Criteria for Credit

Credit will be given for the correct answer only.

Item Sample:

Your collection policy states (in part):

- Materials that cost more than $100 are rarely acquired without evidence of need.
- Materials that are readily available on interlibrary loan are rarely acquired without evidence of need.

You are considering purchasing an audiovisual entitled The Human Brain. In evaluating the title you have noted the following information:

Date of Publication	1986
Format	16 mm film
Producer	American Medical Association
Audience	adult, health professionals
Production quality	excellent
Price	$300
Availability other than by purchase	Available on loan from a library in a neighboring region
Potential use	6 times per year, by 3 or more departments
Related items in collection	one 16 mm film, 8 years old, fair quality, used 5 times last year
User requests	Recommended by the chairman of the Department of Neurology

You have a very limited budget this year. Which one of the following purchase decisions will you make?

1. Do not purchase; easily available elsewhere
2. Do not purchase; too expensive
3. Purchase later; your collection already has sufficient materials in this area
4. Purchase now; it was recommended

Source: Bradley, J. Hospital Library Management. Chicago: MLA, 1983, p. 171.

AREA OF CONCENTRATION EXAMINATION
TECHNICAL SERVICES

Objective 2

Statement of Objective

Select appropriate mechanisms to measure collection strengths and weaknesses.

General Description

Every examinee should be able to recognize evaluation aids and mechanisms for measuring collection strengths and weaknesses as well as be able to point out the advantages or disadvantages of various techniques used in assessing health sciences collections.

Content Limitations

Sources: Will be limited to the following:

1. Roper, F. and Boorkman, J.A. Introduction to Reference Sources in the Health Sciences. 2nd ed. Chicago: MLA, 1984. chapter 11
2. Bradley, J. Hospital Library Management. Chicago: MLA, 1983.
3. Handbook of Medical Library Practice. 4th ed. Chicago: MLA, 1982. vol. 2
4. Course Guide for CE 112: Collection Development

Key Elements: Will include examination of collections in terms of quantity, quality, or use, plus the advantages and disadvantages of the various techniques for collection evaluation.

Item Format 1

Stimulus Attributes:

1. The stem describes a problem or need that requires an evaluation of all or part of the collection and identifies an evaluation technique to be used, such as user surveys, circulation counts, consultant review, etc. The description is followed by a question in the following format: "Which of the following is [an advantage/a disadvantage] of using that evaluation technique in this situation?"

2. Each item will require recognizing an advantage or disadvantage of a specified evaluation technique.

Response Attributes:

1. Four or five responses will be listed.
2. Each response will be plausible as an advantage or disadvantage of an evaluation technique.
3. A response may be incorrect because it is [an advantage/a disadvantage] of some other evaluation technique.
4. A response may be incorrect because it is an advantage of the technique when a disadvantage is sought, or vice versa.
5. A response may be incorrect because it accurately describes the technique but is neither an advantage nor a disadvantage.
6. A response may be incorrect because it is a false statement.
7. Only the correct answer will be [an advantage/a disadvantage] of the specified evaluation technique.

Criteria for Credit

Credit will be given for the correct answer only.

Item Sample:

You want to evaluate your study-level collection in nutrition and have decided to compare your holdings to an authoritative nutrition bibliography. Which of the following is a disadvantage of using that evaluation technique in this situation?

1. The technique is based on the assumption that there is a relationship between the size of the collection and its ability to respond to user needs.
2. Comparing holdings to an external standard is not a method of determining quality.
3. Extensive studies of this nature are most effectively pursued with the use of sampling techniques.
4. Study-level collections are best judged by client-centered techniques, such as usage studies.

Source: Handbook of Medical Library Practice. 4th ed. Chicago: MLA, 1982. vol. 2, p. 73-77.

Item Format 2

Stimulus attributes:

1. The stem describes a problem or need that requires an evaluation of all or part of the collection, followed by a question in the following format: "Which of the following techniques is the [most/least] appropriate for evaluating a collection in this situation?"

2. Each question will require selecting the [most/least] appropriate evaluation technique.

Response attributes:

1. Four or five responses will be listed, each of which will be a technique for evaluation, such as user surveys, circulation counts, reshelve tallies, etc.

2. A response may be incorrect because it does not provide information relevant to the stated need.

3. A response may be incorrect because it does not provide as reliable a measure as the correct response.

4. Only the correct answer will give reliable information that is relevant to the stated need.

Criteria for Credit

Credit will be given for the correct answer only.

Item Sample:

The medical school that your library serves is adding a new nutrition component to its curriculum. Nutrition has not been emphasized before and so has been collected very selectively. You want to evaluate your holdings in nutrition to estimate the amount of extra funds to request. Which of the following techniques is the least appropriate for evaluating a collection in this situation?

1. Assessment by a subject consultant
2. Comparing holdings to an authoritative bibliography
3. Counting the number of books and journals in the subject.
4. Analyzing circulation statistics.

Source: Handbook of Medical Library Practice. 4th ed. Chicago: MLA, 1982. vol. 2, p. 73-77.

Objective 3

Statement of Objective

Select appropriate online and print sources for bibliographic verification of health sciences materials in all formats.

General Description

Every examinee is expected to be able to select the most appropriate online or print source to verify the bibliographic elements of an item to be ordered. Examinees should be able to select the most or least appropriate source for verification of health sciences monographs, serials, and materials in specialized formats, such as government publications, technical reports, audiovisuals, rare books, and translations.

Content Limitations

Sources: Will be limited to the following:

1. Roper, F. and Boorkman, J.A. Introduction to Reference Sources in the Health Sciences. 2nd ed. Chicago: MLA, 1984, chapter 6, 11, & 14
2. Bradley, J. Hospital Library Management. Chicago: MLA, 1983. Chapter 4 & 10
3. Handbook of Medical Library Practice. 4th ed. Chicago: MLA, 1982. vol. 2, chapter 3

4. Course Guide for CE 112: Collection Development

Key Elements: Will include standard as well as lesser used online and print sources of bibliographic information for health sciences materials in all formats.

Item Format

Stimulus Attributes:

1. The stem will describe a type of health sciences publication to be purchased and a particular element to be verified, followed by one of the following questions: "Which of the following is the best source to verify this information?" or "Which of the following is not an appropriate source for verifying this information?"

2. Each item will require identification of specific verification sources.

Response Attributes:

1. Four or five responses will be listed, each consisting of the full title of an online and/or print verification source.

2. A response may be incorrect because it does not contain the information requested.

3. A response may be incorrect because it includes some of the information requested, but not all of it.

Criterion for Credit

Credit will be given for the correct answer only.

Item Sample:

You would like to purchase a National Library of Medicine document but you need to verify the price before ordering. Which of the following is not an appropriate source for verifying this information?

1. National Library of Medicine News
2. GPO Sales Publications Reference File
3. Monthly Catalog of United States Government Publications
4. MEDOC
5. National Library of Medicine Current Catalog

Sources: Handbook of Medical Library Practice. 4th ed. Chicago: MLA, 1982. vol. 2, p. 111-113

AREA OF CONCENTRATION EXAMINATION
TECHNICAL SERVICES

Objective 4

Statement of Objective

Select appropriate cataloging tools and both online and print sources of bibliographic information for descriptive cataloging or classification information.

General Description

Every examinee is expected to know standard as well as lesser used online and print sources for obtaining bibliographic information for descriptive cataloging or classification information. Emphasis will be placed on those sources needed to catalog all types of materials (e.g., monographs, serials, audiovisuals), particularly those in peripheral subject areas (e.g., biology, anthropology, or psychology). Examinees should be able to evaluate which source is best for the particular types of materials being cataloged.

Content Limitations

Sources: Will be limited to the following:

1. Roper, F. and Boorkman, J.A. Introduction to Reference Sources in the Health Sciences. 2nd ed. Chicago: MLA, 1984.
2. Bradley, J. Hospital Library Management. Chicago: MLA, 1983. Chapter 5
3. Handbook of Medical Library Practice. 4th ed. Chicago: MLA, 1982. vol. 2, chapters 5 & 6
4. Course guide for CE 524: MeSH and NLM Classification

Key Elements: Will include standard as well as lesser used online and print sources used for obtaining bibliographic information for descriptive cataloging or classification information.

Item Format 1

Stimulus Attributes:

1. The stem presents a title to be classified in either the NLM or LC classification.

2. The stem may also present other relevant information about the title if appropriate for describing the cataloging situation. This may include information such as when it was published, if any and what kind of cataloging copy information is already available and may need to be updated.

3. The examinee is asked: "Which of the following is the best (least appropriate) source to determine the classification number that NLM would assign to this work?

Response Attributes:

1. Four or five alternative responses will be given, each consisting of full titles of online or print sources of cataloging information.

2. A response may include the information requested, but may not be the most authoritative source for the information.

3. All responses will be plausible; no response will be obviously irrelevant to the uninformed examinee.

4. Only one correct response will be possible.

Criterion for Credit:

Credit will be given for the correct answer only.

Item Sample:

You are cataloging the title, Nutrition and diet in small animal medicine, which was just published this year. Which of the following is the best source to determine the classification number that NLM would assign to this work?

1. Cataloging in Publication
2. National Library of Medicine Classification
3. National Union Catalog
4. Library of Congress Classification

Source: Course guide for CE 524: MeSH and NLM Classification, p. 30.

Item Format 2

Stimulus Attributes:

1. The stem presents a title to be cataloged.

2. The stem may also present other relevant information about the title if appropriate for describing the cataloging situation. This may include information such as when it was published, if any and what kind of cataloging copy information is already available and may need to be updated.

3. The examinee is asked: "Which of the following is the best (least appropriate) source to obtain current descriptive cataloging information according to the practices followed by the National Library of Medicine?"

Response Attributes:

1. Four or five alternative responses will be given, each consisting of full titles of online or print sources of descriptive cataloging information.
2. A response may include the information requested, but may not be the most authoritative source for the information.
3. All responses will be plausible; no response will be obviously irrelevant to the uninformed examinee.
4. Only one correct response will be possible.

Criterion for Credit:

Credit will be given for the correct answer only.

Item Sample:

You are cataloging the title: Abortion: the development of the Roman Catholic perspective. Which of the following is the least appropriate source to obtain current descriptive cataloging information according to the practices followed by the National Library of Medicine?"

1. CATLINE
2. National Union Catalog
3. National Library of Medicine Current Catalog
4. Cataloging in Publication

Source: Course Guide for MLA CE 524: MeSH and NLM Classification, p. 1-5.

AREA OF CONCENTRATION EXAMINATION
TECHNICAL SERVICES

Objective 5

Statement of Objective

Determine the appropriate NLM or LC classification number based on current cataloging practice for a wide variety of materials, such as, monographs covering multi-faceted subjects, serials, or audiovisuals.

General Description

Every examinee is expected to have a thorough understanding of the NLM Classification, including the use of form numbers and geographic subdivisions, and NLM's use of the LC Classification schedules, and be able to classify materials on multi-faceted or complex subjects, covering all formats (e.g., monographs, serials, audiovisuals).

Contents Limitations

Sources: Will be limited to the following:

1. Bradley, J. Hospital Library Management. Chicago: MLA, 1983. Chapter 5
2. Handbook of Medical Library Practice. 4th ed. Chicago: MLA, 1982. vol. 2, chapters 5 & 6
3. Course guide to MLA CE 524: MeSH and NLM Classification
4. National Library of Medicine Classification. 4th ed., revised 1981.
5. LC Classification Schedules

Key Elements: Will include assignment of NLM and LC classification numbers to works in complex subjects, as well as works covering a variety of material formats. Will include all areas of the classification schedules.

Item Format

Stimulus Attributes:

1. The stem presents a title page, and other preliminaries if needed, or describes a cataloging situation.

2. The examinee is asked: "According to NLM cataloging policy, which is the most appropriate classification number to assign to this work?"

Response Attributes:

1. Four or five alternative responses will be listed, each consisting of an NLM or LC classification number.

2. Responses may relate to the application of one or more principles of cataloging practice.

3. All responses will be plausible; no response will be obviously irrelevant to the uninformed examinee.

4. Responses will include the corresponding sections of the NLM or LC classification schedules.

5. A response may be incorrect under any of the following conditions:
   a) incorrect application of form numbers
   b) incorrect application of geographic subdivisions
   c) incorrect interpretation of a scope note
   d) incorrect interpretation of an entry in the index of the NLM Classification schedule

6. Only one correct answer will be possible.

Criterion for Credit:

Credit will be given for the correct answer only.

Item Sample:

You are cataloging a book entitled: Communication therapy in childhood schizophrenia: an auditory monitoring approach. According to NLM cataloging policy, which is the most appropriate classification number to assign to this work?

(Refer to attached corresponding sections of the NLM Classification)

1. WM 193
2. WS 105.5 .M3
3. WS 350.2
4. WS 350.8 .S6
5. WM 203

Source: Course guide for MLA CE 524: MeSH and NLM Classification, p.36-37.

145 Psychological tests. Projective technics, e.g., Rorschach test. TAT
Classify works on intelligence tests usually administered to people considered normal in BF 431.

170 Neuroses

171 Affective disturbances
Cf. WM 207 Manic depressive psychoses. Include works on depression here.

172 Anxiety

173 Hysteria and associated disorders

173.5 Conversion disorder

173.6 Dissociative disorders

173.7 Amnesia and other memory disorders

174 Neurasthenia. Mental fatigue

175 Appetite disorders associated with neuroses. Anorexia nervosa
Cf. WI 143 for appetite disorders in general: WS 115-130 for disorders of children and infants.

176 Obsessive-compulsive neuroses. Compulsive behavior

178 Phobias. Hypochondriasis. Sick role
Classify works on sick role associated with a particular disease with the disease.

184 War neuroses

188 Sleep disorders and associated conditions
Classify here material on all disorders of sleep regardless of severity. Include popular works. Cf. WL 108 Physiology of sleep.

190 Personality disorders (General or not indexed elsewhere)
e.g., Inadequate personality. Passive-dependent personality

193 Defense mechanisms
Cf. WM 173.5 Conversion reaction; WS 350.8.D3 Defense mechanism in children. Classify works on purely psychological aspects of various defense mechanisms in appropriate BF numbers.

193.5 Special topics, A-Z

- .A2 Acting out
- .D3 Denial (Psychology)
- .D5 Displacement Psychology)
- .P3 Perceptual defense
- .P7 Projection
- .R1 Rationalization
- .R2 Regression
- .R4 Repression
- .S8 Sublimation. Fantasy

197 Psychomotor disorders (General or not indexed elsewhere)
Classify specific disorders by subject, e.g., Apraxia WL 340.

200 Psychoses

202 Functional

203 Schizophrenia and schizophrenic syndromes

203.5 Autism

204 Cognition and perceptual disorders associated with psychoses

205 Paranoia and paranoid syndromes

207 Manic-depressive psychoses and affective syndromes
Classify works on reactive depression and on non-psychotic affective disturbances in WM 171.

[210] [This number not used]
Classify works on antisocial personality in WM 190.

220 Organic (General or not indexed elsewhere)
e.g., Psychoses associated with infections, convulsive disorders, neurologic disorders

270 Drug dependence. Drug abuse

274 Alcohol

276 Cannabis

280 Cocaine

105 Normal mental growth and development. Child psychology

Classify works on psychophysiological aspects in WL, e.g., on physiology of sleep in WL 108; on laterality in WL 335; or with the system involved; on vision and visual perception in WW 103-105; on motor skills in WE 103-104.

105.5 Special topics, A-Z

.A8	Attitudes and adjustments (to death, illness, divorce, etc.)
.C3	Child rearing (Psychological aspects) *Classify general works including physiological problems with child care in WS 113.*
.C7	Cognition. Fantasy. Imagination
.C8	Communication. Verbal behavior
.D2	Decision making. Logic. Thinking. Concept formation. Perception (Psychological) *Classify works on neurophysiological perception and specific types of perception in WL 705 or with the organ involved.*
.D3	Deprivation (economic, parental, etc.) and security
.E5	Emotions. Frustrations, etc.
.E8	Evaluation of psychological development (General)
.E9	External influences (literature, motion pictures, television, war, etc.)
.F2	Family relations. Birth order. Only child. Twins. Parent-child relations. Father-child relations. Mother-child relations. Sibling relations, etc.
.H2	Handicapped child (Psychological problems)
.H7	Hospitalized child *Cf. WA 310-320 Maternal and child welfare.*
.I5	Interpersonal relations (doctor, peer, stranger, etc.) *Cf. WS 105.5.S6 Race relations. Classify works on dentist's relation to the child in WU 480; on nurse's relation to the child in WY 159.*
.M3	Mental health *Classify works on school mental health in WA 352.*
.M4	Morals
.M5	Motivation
.P3	Personality development
.P5	Play
.S3	Self
.S4	Sex behavior
.S6	Social behavior. Social problems. Race relations *Cf. WS 105.5.I5 Interpersonal relations.*

107 The retarded child. Down's syndrome

Classify other material on child psychiatry in WS 350; on education of the mentally retarded in LC 4601-4640; on adult mental retardation in WM 300.

107.5 Special topics when related to the retarded child, A-Z

.B4	Biochemistry. Genetics
.C2	Case studies. Biographical accounts
.C6	Communication
.D3	Development. Prognosis
.F6	Foster homes

BY SYSTEM

In the numbers for each system, include general works on the diseases of the organs of the system or on special groups of diseases of the system. Classify works on surgery of a single organ here in WS, e.g., Gastrectomy of the child in WS 310. Classify works on surgery of a system with the system, e.g., Neurosurgery of the child in WL 368. Classify works on particular diseases with the disease except for the three disease numbers in WS 312–342.

260 Skin

270 Musculoskeletal system

280 Respiratory system

290 Cardiovascular system

300 Hemic and lymphatic system

310 Gastrointestinal system

312 Diarrheal disorders

320 Urogenital system

322 Enuresis

330 Endocrine system

340 Nervous system

342 Cerebral palsy

350 Child psychiatry. Child guidance (General) Psychoses
Cf. WS 107 The retarded child. Classify works on specific disorders in WM.

350.2 Therapy
Classify here works on all types of therapy for mental disorders of children. Classify therapy of a particular disorder with the disorder.

350.5 Psychoanalysis

350.6 Behavior disorders. Development disorders. Neuroses (General)
Classify works on particular neurotic disorders in WM 171-197.

350.8 Special topics in child psychiatry, A-Z

.A4 Aggression. Violence
.D3 Defense mechanisms
.H9 Hyperkinesis
.I3 Identity crisis
.I4 Inhibition
.L9 Lying
.P3 Personality disorders
.R9 Runaway reaction
.S6 Social behavior disorders
Classify works on aggression in WS 350.8.A4.

360 Pediatric gynecology (General)

366 Pediatric therapeutics (General)

368 Medical rehabilitation of physically handicapped children

BY AGE GROUP

405 Birth injuries

410 Premature infants

420 Newborn infants. Neonatology
Classify specific diseases with the disease, except those of the newborn only.

430 Infancy

440 Preschool child

450 Puberty

460 Adolescence (General)

462 Adolescent psychology

MODELS FOR AREA OF CONCENTRATION EXAMINATION
TECHNICAL SERVICES

Objective 6

Statement of Objective

Identify and describe NLM's application of descriptive cataloging codes.

General Description

Every examinee is expected to understand NLM's application of the various descriptive cataloging rules. Examinees should be familiar with how NLM's application of various cataloging codes has differed from LC's application, how this application has affected entries in catalogs, what one can expect to find in various print sources of bibliographic copy depending on which rules were in force at the time, how rule applications have affected catalogs over the years, and what might be involved in adopting AACR2 in a health sciences library.

Content Limitations

Sources: Will be limited to the following:

1. Bradley, J. Hospital Library Management. Chicago: MLA, 1983. Chapter 5
3. Handbook of Medical Library Practice. 4th ed. Chicago: MLA, 1982. vol. 2, chapter 5
3. Course guide to MLA CE 520: Descriptive Cataloging in Health Sciences Libraries.

Key Elements: Will include choice of main entries and formulation of headings according to the NLM's application of the following cataloging codes: ALA Cataloging Rules for Author and Title Entries (1949), AACR1 and AACR2.

Item Format 1

Stimulus Attributes:

1. The stem presents a title page, and other preliminaries if needed, and describes a cataloging situation.
2. The examinee is asked: "According to NLM's application of [name appropriate cataloging code] the correct form of main entry for this work is:"

Response Attributes:

1. Four or five alternative responses will be listed, each consisting of a possible main entry.

2. Responses may relate to the application of one or more cataloging principles and may be derived from different cataloging codes.

3. All responses will be plausible; no response will be obviously irrelevant to the uninformed examinee.

4. Only one correct answer will be possible.

Criterion for Credit:

Credit will be given for the correct answer only.

Item Sample:

You are cataloging the work, Management operations of the National Cancer Institute that influence the governance of science. According to NLM's application of AACR2 the correct form of main entry for this work is:"

(Refer to attached title page and other preliminaries for complete information)

1. DeVita, Vincent T., Jr.
2. DeVita, Vincent T., 1935-
3. National Cancer Institute (U.S.)
4. United States. National Cancer Institute.
5. Management operations of the National Cancer Institute that influence the governance of science

Source: Course guide for MLA CE 52O: Descriptive Cataloging in Health Sciences Libraries, p.5-6.

Item Format 2

Stimulus Attributes:

1. The stem presents a title page, and other preliminaries if needed, or describes a cataloging situation.

2. The examinee is asked: "According to NLM's application of [name appropriate cataloging code] the correct form of entry for this access point is:"

Response Attributes:

1. Four or five alternative responses will be listed, each consisting of a variation of the same access point.
2. Responses may relate to the application of one or more cataloging principles and may be derived from different cataloging codes.
3. All responses will be plausible; no response will be obviously irrelevant to the uninformed examinee.
4. Only one correct answer will be possible.

Criterion for Credit:

Credit will be given for the correct answer only.

Item Sample:

You are cataloging the work, Management operations of the National Cancer Institute that influence the governance of science. You want to provide an access point for the government body that has published the work. According to NLM's application of AACR1 the correct form of entry for this access point is:"

(Refer to attached title page and other preliminaries for complete information)

1. National Cancer Institute (U.S.)
2. United States. Dept. of Health and Human Services. Public Health Service. National Institutes of Health. National Cancer Institute.
3. United States. Public Health Service. National Institutes of Health. National Cancer Institute.
4. United States. National Cancer Institute.
5. National Cancer Institute.

Source: Course guide for MLA CE 52O: Descriptive Cataloging in Health Sciences Libraries, p.5-6.

NATIONAL CANCER INSTITUTE MONOGRAPH 64

May 1984

Management Operations of the National Cancer Institute That Influence the Governance of Science

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PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH
NATIONAL CANCER INSTITUTE, BETHESDA, MARYLAND 20205

Management Operations of the National Cancer Institute That Influence the Governance of Science

Office of the Director

National Cancer Institute
Bethesda, Maryland

Editors:

Vincent T. DeVita, Jr., M.D.
Louis M. Carrese

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Vincent T. DeVita, Jr., *Director, National Cancer Institute*

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MODELS FOR AREA OF CONCENTRATION EXAMINATION
TECHNICAL SERVICES

Objective 7

Statement of Objective

Choose appropriate subject headings and subheadings based on an understanding of MeSH vocabulary and the principles of application of NLM's cataloging practices and policies.

General Description

Every examinee is expected to be able to interpret entries in the MeSH Annotated Alphabetic List and determine which main headings and subheadings should be assigned for materials covering complex or multi-faceted subjects. Examinees should be able to interpret MeSH cataloging and indexing annotations, and be familiar with NLM's cataloging practices and policies in the use of MeSH.

Contents Limitations

Sources: Will be limited to the following:
1. MeSH Annotated Alphabetic List
2. Course guide for CE 524: MeSH and NLM Classification

Key Elements: Will include the assignment of main headings and all types of subheadings (i.e., topical, geographic, form, language).

Item Format

Stimulus Attributes:

1. The stem presents two or more descriptors, including all annotations and references, from the MeSH Annotated Alphabetic List.

2. The examinee is asked: "According to NLM's cataloging practices and policies, the correct (incorrect) main heading / subheading combination is?"

Response Attributes:

1. Four or five alternative responses will be listed, each consisting of a major or minor descriptor, with or without subheadings.

2. All responses will be superficially plausible; none will be obviously irrelevant to the marginally informed examinee.

3. A responses may be incorrect when any of the following conditions exist:
    a) an inappropriate subheading is used with a main heading.
    b) a minor descriptor is used
    c) a subheading is used with a minor descriptor
    d) an allowable subheading is used with a major descriptor, but NLM cataloging practice does not permit its use.
    e) an incorrect combination of subheadings are used with a main heading (e.g., 2 topical subheadings combined with the same main heading)

4. Only one correct answer will be possible.

Criterion for Credit:

Credit will be given for the correct answer only.

Item Sample:

The following entries appear in the MeSH Annotated Alphabetic List.

FINANCIAL MANAGEMENT
N3.219.463+
only /econ /legis /methods /stand /trends
78
see related
INCOME
X ENDOWMENTS
XU BUDGETS
XU CAPITAL FINANCING
XU COMPETITIVE BIDDING
XU CONTRACT SERVICES
XU FINANCIAL MANAGEMENT. HOSPITAL
XU FINANCING. CONSTRUCTION
XU FUND RAISING
XU LEASING. PROPERTY
XU RISK MANAGEMENT

FINANCIAL MANAGEMENT, HOSPITAL
N2.278.354.180 N3.219.463.280
N4.452.442.180
only /econ /legis /methods /stand /trends
(82)
see under FINANCIAL MANAGEMENT
X HOSPITAL FINANCIAL MANAGEMENT

According to NLM's cataloging practices and policies, the correct main heading / subheading combination is?"

1. Financial Management--economics--trends
2. Financial Management--economics--trends--U.S.
3. Financial Management, Hospital--economics
4. Financial Management, Hospital--U.S.
5. Financial Management--economics--U.S.

Source: Course Guide for CE 524: MeSH and NLM Classification, p. 12-19.

Objective 8

Statement of Objective

Determine the most economic and prompt method for ordering health sciences library material.

General Description

Every examinee is expected to know the methods of acquiring health science library material, such as using a book jobber or subscription agent, and be able to select the most appropriate method of acquiring a particular type of material, recognizing the health sciences library's relatively narrow subject scope, its emphasis on serials, and its special need to provide speedy access to materials.

Content Limitations

Sources: Will be limited to the following:

1. Bradley, J. Hospital Library Management. Chicago: MLA, 1983. Chapter 4
3. Handbook of Medical Library Practice. 4th ed. Chicago: MLA, 1982. vol. 2, chapters 3 & 8
3. Course guide to MLA CE 1120: Collection Development

Key Elements: Will include direct order, agent or jobber, approval plan, standing order, and deposit account in acquiring books, journals, government publications, continuations, and non-book materials for health sciences libraries.

Item Format

Stimulus Attributes:

1. The stem will identify a type of health sciences library material to be acquired and a type of supplier, such as publisher, book jobber, or subscription agent, followed by the question: "For which of the following titles is this supplier the [most/least] appropriate?"

Response Attributes:

1. Four or five responses will be listed, each consisting of relevant information about a specific health sciences item, such as title, publisher, date, and price.

2. A response may be incorrect because the material cannot be acquired from that supplier.

3. A response may be incorrect because the material would be acquired more slowly from that supplier.

4. A response may be incorrect because the material would be acquired at greater cost from that supplier.

Criterion for Credit

Credit will be given for the correct answer only

Item Sample:

You are placing orders for new serials and are deciding which titles to order from a subscription agent. For which of the following titles is this supplier most appropriate?

1. Brain research. Elsevier/North Holland. $8500/year.
2. Perfusion technology. American Association of Perfusion Technologists. $35/year.
3. NIH bulletin. National Institutes of Health. Free.
4. Heart & lung. C. V. Mosby. $122/year.

Source: Handbook of Medical Library Practice. 4th ed. Chicago: MLA, 1982. vol. 2, p. 314

AREA OF CONCENTRATION EXAMINATION
HOSPITAL LIBRARY

Objective 1

Statement of Objective

Select specific reference works or online sources in the health sciences for specific information needs or problems.

General Description

The examinee must exhibit a depth of knowledge of specific print and online sources, including their scope, coverage, content, arrangement, and access points. This will also include a knowledge of the less frequently used print and online sources.

Content Limitations

Sources: The examinee will be responsible for knowing the content of sources listed in:

1. Roper, F. and Boorkman, J.A. Introduction to Reference Sources in the Health Sciences. 2nd ed. Chicago: MLA, 1984.
2. Bradley, J. Hospital Library Management. Chicago: MLA, 1983. Chapter 8
3. Handbook of Medical Library Practice. 4th ed. Chicago: MLA, 1982. vol. 1, chapters 5 & 6

Key Elements:

1. Specific information need or problem
2. Specific print or online resources
3. Scope, coverage, content, arrangement, access points of specific print and online resources

Item Format

Stimulus Attributes:

1. The stem presents the information problem or need, followed by the question: "Which of the following sources is [most/least] likely to answer this question?" or "Which of the following is [most/least] [efficient/quick]?"

2. Each item will require selection of a specific print or online resource which is the most/least appropriate to answer the question based on knowledge of scope, coverage, content, arrangement, and access points.

Response Attributes:

1. Four or five alternative responses will be given.
2. Each response will consist of the complete title of a work or the author's last name and the complete title of the work, depending on how it is best known. All of the alternative will be titles from sources listed under content limitations.
3. Only one correct answer will be possible. The other alternatives may meet part of the stimulus but not all of it.
4. An incorrect response may have a title which suggests that it is the correct answer without in fact being the correct answer.
5. An incorrect response may include related information but not meet the condition "most/least" required in the stem.

Criterion for Credit:
Credit will be given for the correct answer only.

Item Sample 1:

A physician is seeking information on family planning practices in India and China. Which of the following sources is most likely to answer this question?

1. EMBASE
2. DIRLINE
3. BIOSIS Previews
4. POPLINE

Source: Roper, F. and Boorkman, J.A. Introduction to Reference Sources in the Health Sciences. 2nd ed. Chicago: MLA, 1984, p. 75.
NLM Online Services Reference Manual 2.4.1, 2.4.2

Item Sample 2:

A physician has come to you asking for information on the interactions of two drugs. Which of the following is least likely to answer this question?

1. Evaluations of Drug Interactions
2. Hansten's Drug Interactions
3. Martindale: The Extra Pharmacopoeia
4. The Merck Index: An Encyclopedia of Chemicals, Drugs and Biologicals

Source: Roper, F. and Boorkman, J.A. Introduction to Reference Sources in the Health Sciences. 2nd ed. Chicago: MLA, 1984, p. 130.

AREA OF CONCENTRATION EXAMINATION
HOSPITAL LIBRARY

Objective 2

Statement of Objective

Determine the appropriate subject headings and subheadings based on an understanding of MeSH vocabulary and the principles of application for information retrieval.

General Description

Every examinee is expected to be able to interpret entries in the MeSH Annotated Alphabetic List and determine which main headings and subheadings should be used when searching Index Medicus, MEDLINE, or the card catalog. Examinees should be able to interpret MeSH scope notes, cross references, dates and cataloging and indexing annotations, and be familiar with NLM's cataloging practices and policies in the use of MeSH.

Contents Limitations

Sources: Will be limited to the following:

1. Front matter of the MeSH Annotated Alphabetic List and Index Medicus
2. Course guide for CE 524: MeSH and NLM Classification
3. Feinglos, S. MEDLINE: a basic guide to searching, 1985.
4. Roper, F., Boorkman, J.A., Introduction to Reference Sources in the Health Sciences, 1984.

Key Elements: Will include the assignment of main headings and all types of subheadings (i.e., topical, geographic, form, language) according to NLM's cataloging practices for creation of entries in a card catalog; the choice of headings and subheadings used to search MEDLINE or the printed Index Medicus; the interpretation of MeSH notes and other annotations.

Item Format 1

Stimulus Attributes:

1. The stem presents a searching situation for the printed Index Medicus or for MEDLINE, followed by the statement: "The MeSH Annotated Alphabetic List contains the following entry (entries):".

2. The complete entry from MeSH including scope notes, cross references, dates and other annotations are presented.

3. The examinee is asked: "Based on this entry (these entries), which of the following statements is true (false) for searching [name appropriate source, i.e., printed Index Medicus, MEDLINE]?"

Response Attributes:

1. Four or five alternative responses will be given each relating to the MeSH entries given in the stem.

2. All responses will be superficially plausible; none will be obviously irrelevant to the marginally informed examinee.

3. A response may be incorrect due to: inappropriate interpretation of content notes, searching notes, date, or cross reference structure.

4. Only one correct answer will be possible.

Criterion for Credit:

Credit will be given for the correct answer only.

Item Sample 1:

You are searching the printed Index Medicus for references on the topic of temporomandibular joint syndrome from 1966 to the present. The MeSH Annotated Alphabetic List contains the following entries:

TEMPOROMANDIBULAR JOINT DISEASES
C5.550.905+
note term below: DF: TMJ DIS
82

TEMPOROMANDIBULAR JOINT SYNDROME
C5.500.607.781 C5.550.905.905
C5.651.651.905
note term above: DF: TMJ SYNDROME
73; was COSTEN'S SYNDROME 1966-72
use TEMPOROMANDIBULAR JOINT SYNDROME to search COSTEN'S SYNDROME back thru 1966
X COSTEN'S SYNDROME
X MYOFASCIAL PAIN DYSFUNCTION SYNDROME, TEMPOROMANDIBULAR JOINT
XR FACIAL PAIN

Based on these entries, which of the following statements is true for searching the printed Index Medicus?

1. COSTEN'S SYNDROME is a "see" reference to TEMPOROMANDIBULAR JOINT DISEASES
2. TEMPOROMANDIBULAR JOINT SYNDROME is searchable back through 1966
3. The data form abbreviation TMJ DIS is searchable
4. The data form abbreviation TMJ SYNDROME is searchable
5. COSTEN'S SYNDROME should be used from 1966 to 1972

Source: Preliminary pages of the MeSH Annotated Alphabetic List.

Item Sample 2:

You are searching in MEDLINE for references on the topic of temporomandibular joint syndrome from 1966 to the present. The MeSH Annotated Alphabetic List contains the following entries:

TEMPOROMANDIBULAR JOINT DISEASES
C5.550.905 –
note term below: DF: TMJ DIS
82

TEMPOROMANDIBULAR JOINT SYNDROME
C5.500.607.781 C5.550.905.905
C5.651.651.905
note term above: DF: TMJ SYNDROME
73; was COSTEN'S SYNDROME 1966-72
use TEMPOROMANDIBULAR JOINT SYNDROME to search COSTEN'S SYNDROME back thru 1966
X COSTEN'S SYNDROME
X MYOFASCIAL PAIN DYSFUNCTION SYNDROME, TEMPOROMANDIBULAR JOINT
XR FACIAL PAIN

Based on these entries, which of the following statements is false for searching MEDLINE?

1. COSTEN'S SYNDROME is a "see" reference to TEMPOROMANDIBULAR JOINT SYNDROME
2. TEMPOROMANDIBULAR JOINT SYNDROME is searchable back through 1966
3. The data form abbreviation TMJ DIS is searchable
4. The data form abbreviation TMJ SYNDROME is searchable
5. COSTEN'S SYNDROME should be used from 1966 to 1972

Source: Preliminary pages of the MeSH Annotated Alphabetic List.

Item Format 2

Stimulus Attributes:

1. The stem presents a searching situation for the card catalog followed by the statement: "The MeSH Annotated Alphabetic List contains the following entry (entries):".

2. The complete entry from MeSH including scope notes, cross references, dates, and other annotations are presented.

3. The examinee is asked: "Based on this entry (these entries), which of the following entries would you expect to find (not find) in the card catalog?"

Response Attributes:

1. Four or five alternative responses will be given each relating to the MeSH entries given in the stem.

2. All responses will be superficially plausible; none will be obviously irrelevant to the marginally informed examinee.

3. A response may be incorrect when any of the following conditions exist:
   a) an inappropriate subheading is used with a main heading
   b) a minor descriptor is used, with or without a subheading, for an entry in the card catalog
   c) an incorrect combination of subheadings are used with a main heading for a card catalog entry
   d) a content note, indexing or cataloging note, dates, or cross references are interpreted incorrectly

4. Only one correct answer will be possible.

Criterion for Credit:

Credit will be given for the correct answer only.

Item Sample:

You are searching in your card catalog for books on the subject of statistical information of health occupations. The MeSH Annotated Alphabetic List contains the following entries:

HEALTH MANPOWER
· N2.350+
GEN only: prefer /manpower with specific headings; when GEN & IM. do not use /educ (= HEALTH OCCUPATIONS /educ) /manpower /organ CATALOG: /geog /form
68
X HEALTH OCCUPATIONS MANPOWER
X HEALTH PERSONNEL

HEALTH OCCUPATIONS
G2+
only /econ /educ /hist /stand /trends; /man = HEALTH MANPOWER; for health aides try HEALTH MANPOWER or ALLIED HEALTH PERSONNEL or PHYSICIANS' ASSISTANTS CATALOG: /geog /form
68; was HEALTH PROFESSIONS 1963-67
use HEALTH OCCUPATIONS to search HEALTH PROFESSIONS back thru 1966
X ALLIED HEALTH OCCUPATIONS
X HEALTH PROFESSIONS
XR OCCUPATIONS

Based on these entries, which of the following entries would you not expect to find in the card catalog?

1. Health Manpower -- statistics
2. Health Manpower -- U.S. -- statistics
3. Health Occupations -- trends -- statistics
4. Health Occupations -- U.S. -- statistics
5. Health Occupations -- manpower -- statistics

Source: Course guide for CE 524: MeSH and NLM Classification, p. 12-19.

Item Format 3

Stimulus Attributes:

1. The stem presents a searching situation for the printed Index Medicus or for MEDLINE, followed by the statement: "The MeSH Annotated Alphabetic List contains the following entry (entries):".

2. The complete entry from MeSH including scope notes, cross references, dates and other annotations are presented.

3. The examinee is asked: "Based on this entry (these entries), which of the following entries would you expect to find (not find) in [name appropriate source, i.e., MEDLINE, printed Index Medicus)?

Response Attributes:

1. Four or five alternative responses will be given each relating to the MeSH entries given in the stem.

2. All responses will be superficially plausible; none will be obviously irrelevant to the marginally informed examinee.

3. A response may be incorrect due to: inappropriate interpretation of content notes, searching notes, date, cross reference structure, or main heading/subheading combination.

4. Only one correct answer will be possible.

Criterion for Credit:

Credit will be given for the correct answer only.

Item Sample:

You are searching in the printed Index Medicus for references on the topic of statistical information of health occupations. The MeSH Annotated Alphabetic List contains the following entries:

HEALTH MANPOWER

N2.350+

GEN only: prefer /manpower with specific headings: when GEN & IM, do not use /educ (= HEALTH OCCUPATIONS /educ) /manpower /organ CATALOG: /geog /form

68

X HEALTH OCCUPATIONS MANPOWER
X HEALTH PERSONNEL

HEALTH OCCUPATIONS

G2+

only /econ /educ /hist /stand /trends; /man = HEALTH MANPOWER; for health aides try HEALTH MANPOWER or ALLIED HEALTH PERSONNEL or PHYSICIANS' ASSISTANTS CATALOG: /geog /form

68; was HEALTH PROFESSIONS 1963-67

use HEALTH OCCUPATIONS to search HEALTH PROFESSIONS back thru 1966

X ALLIED HEALTH OCCUPATIONS
X HEALTH PROFESSIONS
XR OCCUPATIONS

Based on these entries, which of the following entries would you expect to find in the printed Index Medicus?

1. HEALTH MANPOWER / statistics
2. HEALTH OCCUPATIONS / statistics
3. HEALTH OCCUPATIONS / manpower
4. HEALTH OCCUPATIONS / supply & distribution
5. HEALTH MANPOWER / supply & distribution

Source: Preliminary pages of the MeSH Annotated Alphabetic List.

AREA OF CONCENTRATION EXAMINATION
HOSPITAL LIBRARY

Objective 3

Statement of Objective

Interpret the elements of a collection development policy in order to select or weed materials in a health sciences library.

General Description

Every examinee should be able to compare and weigh the importance of the various elements of a collection development policy for making selection and de-selection decisions. The examinee is expected to apply selection criteria for all types of health sciences library materials, including such formats as monographs, serials, audiovisual software, and computer software.

Content Limitations

Sources: Will be limited to the following:

1. Roper, F. and Boorkman, J.A. Introduction to Reference Sources in the Health Sciences. 2nd ed. Chicago: MLA, 1984. chapter 11
2. Bradley, J. Hospital Library Management. Chicago: MLA, 1983. chapters 3 & 10
3. Handbook of Medical Library Practice. 4th ed. Chicago: MLA, 1982. vol. 2, chapter 2
4. Course Guide for CE 112: Collection Development

Key Elements: Will include elements commonly found in collection development policies, such as definitions of terms, description of user population, scope and coverage by subject, and guidelines regarding format, type of material, price, user demand, date of publication, language, multiple copies, replacements, retention and withdrawals. More difficult areas of selection will be addressed, including gifts, exchange, cooperative agreements with other libraries, etc.

Item Format 1

Stimulus Attributes:

1. The stem reproduces 3 or more elements of a collection development policy that influence selection decisions, such as a description of a specific user group, scope and coverage of a subject, exclusion of a format, limitation by publication date, a policy on multiple copies, limitation by price, or a cooperative agreement with other libraries.

2. The stem concludes with a question in the following format: "Based on these criteria, which of the following titles would you select [first/last] to [add to/weed from] your collection?"

3. Each question will require weighing the relation of the different parts of the collection policy in making title-specific decisions.

Response Attributes:

1. Four or five responses will be listed, each describing a real or hypothetical title and including enough information to allow the examinee to make a selection decision, such as author, title, place, publisher, date, price, evidence of demand, etc.

2. None of the responses will meet all of the criteria for selection.

3. Every incorrect response will meet at least one of the criteria.

4. The correct response will meet more of the criteria than any other response.

Criteria for Credit

Credit will be given for the correct answer only.

Item Sample:

Your collection policy includes, among others, the following statements:

- Materials in Cardiology, Orthopedics, and Pediatrics will be collected at the research level.
- Monographs are usually purchased within 3 years of publication date. Older monographs are seldom acquired.
- Clinical monographs published in countries other than the United States, Great Britain, and Canada are rarely acquired.
- Monographs that have been requested on interlibrary loan or recommended by users, and are on clinical medical subjects, are seriously considered for purchase.

Based on these criteria, which of the following titles would you select first to add to your collection?

1. McCarver, Timothy. Interpreting heart sounds. Geneva : World Health Organization, 1982.
2. Fuller, Michael, ed. Iatrogenic infections. Sydney, NSW : Collins, 1985.
3. Leahy, Donald. Surgical treatment of penetrating wounds. Boston : Little Brown, 1981.
4. Weisman, Gregor. Differential diagnosis. Copenhagen : Munksgaard, 1982. (Recommended by Cardiology resident).
5. Carlson, David. Communicable diseases in childhood. New York : Academic Press, 1983. (Requested on interlibrary loan).

Source: Bradley, J. Hospital Library Management. Chicago: MLA, 1983. p. 32-33.

Item Format 2

Stimulus Attributes:

1. The stem presents one or more elements of a collection development policy that influence selection decisions, such as a description of a specific user group, scope and coverage of a subject, exclusion of a format, limitation by publication date, a policy on multiple copies, limitation by price, or a cooperative agreement with other libraries.

2. The stem then describes a title being considered for purchase, including information relating to the collection development policy elements described above and other information that may affect interpretation of the elements.

3. The stem may also present an environmental situation, such as "your library has a very limited budget this year" or "you have just been given a donation of x dollars to purchase materials."

4. The examinee is then asked: "Based on the selection criteria listed above, which one of the following purchase decisions will you make?"

5. Each item will require weighing the different parts of the collection policy in making title-specific decisions.

Response Attributes:

1. Four or five responses will be listed, each consisting of one of the following purchase decisions:
    a) Do not purchase
    b) Purchase at a later time
    c) Purchase now

2. Each response will also include a reason for the decision, such as:
    a) easily available elsewhere
    b) too expensive
    c) low priority addition to the collection
    d) it was a recommendation
    e) it has never been requested on interlibrary loan
    f) it will be used frequently
    g) your collection already has sufficient materials in this area

3. Each response should force the examinee to discriminate among the selection criteria.

4. A response may be incorrect because it represents an incorrect purchase decision.

5. A response may be incorrect because it includes an inappropriate reason for the purchase decision.

6. Only the correct response will represent the correct decision and the most appropriate reason for the decision.

Criteria for Credit

Credit will be given for the correct answer only.

Item Sample:

Your collection policy states (in part):

- Materials that cost more than $100 are rarely acquired without evidence of need.
- Materials that are readily available on interlibrary loan are rarely acquired without evidence of need.

You are considering purchasing an audiovisual entitled The Human Brain. In evaluating the title you have noted the following information:

Date of Publication	1986
Format	16 mm film
Producer	American Medical Association
Audience	adult, health professionals
Production quality	excellent
Price	$300
Availability other than by purchase	Available on loan from a library in a neighboring region
Potential use	6 times per year, by 3 or more departments
Related items in collection	one 16 mm film, 8 years old, fair quality, used 5 times last year
User requests	Recommended by the chairman of the Department of Neurology

You have a very limited budget this year. Which one of the following purchase decisions will you make?

1. Do not purchase; easily available elsewhere
2. Do not purchase; too expensive
3. Purchase later; your collection already has sufficient materials in this area
4. Purchase now; it was recommended

Source: Bradley, J. Hospital Library Management. Chicago: MLA, 1983, p. 171.

AREA OF CONCENTRATION EXAMINATION
HOSPITAL LIBRARY

Objective 4

Statement of Objective

Select appropriate online and print sources for bibliographic verification of health sciences materials in all formats.

General Description

Every examinee is expected to be able to select the most appropriate online or print source to verify the bibliographic elements of an item to be ordered. Examinees should be able to select the most or least appropriate source for verification of health sciences monographs, serials, and materials in specialized formats, such as government publications, technical reports, and audiovisuals.

Content Limitations

Sources: Will be limited to the following:

1. Roper, F. and Boorkman, J.A. Introduction to Reference Sources in the Health Sciences. 2nd ed. Chicago: MLA, 1984, chapter. 6, 11, & 14
2. Bradley, J. Hospital Library Management. Chicago: MLA, 1983. Chapter 4 & 10
3. Handbook of Medical Library Practice. 4th ed. Chicago: MLA, 1982. vol. 2, chapter 3

4. Course Guide for CE 112: Collection Development

Key Elements: Will include standard as well as lesser used online and print sources of bibliographic information for health sciences materials in all formats.

Item Format

Stimulus Attributes:

1. The stem will describe a type of health sciences publication to be purchased and a particular element to be verified, followed by one of the following questions: "Which of the following is the best source to verify this information?" or "Which of the following is not an appropriate source for verifying this information?"

2. Each item will require identification of specific verification sources.

Response Attributes:

1. Four or five responses will be listed, each consisting of the full title of an online and/or print verification source.

2. A response may be incorrect because it does not contain the information requested.

3. A response may be incorrect because it includes some of the information requested, but not all of it.

Criterion for Credit

Credit will be given for the correct answer only.

Item Sample:

You would like to purchase a National Library of Medicine document but you need to verify the price before ordering. Which of the following is not an appropriate source for verifying this information?

1. National Library of Medicine News
2. GPO Sales Publications Reference File
3. Monthly Catalog of United States Government Publications
4. MEDOC
5. National Library of Medicine Current Catalog

Sources: Handbook of Medical Library Practice. 4th ed. Chicago: MLA, 1982. vol. 2, p. 111-113

AREA OF CONCENTRATION EXAMINATION
HOSPITAL LIBRARY

Objective 5

Statement of Objective

Identify principles of effective management in hospital library services.

General Description

Each examinee should be able to identify the principles and practices of planning, staffing, marketing and/or evaluating hospital library services.

Content Limitations

Sources: Bradley, J. Hospital Library Management. Chicago: MLA, 1983.

Key Elements: Elements and types of planning, basic principles o marketing/promoting library services; personnel administration, including recruitment, interviewing, supervision, and evaluation of library staff and volunteers; classes and strategies for evaluation of library services, including performance measures and quality assurance techniques; factors in managerial communication.

Item Format 1

Stimulus Attributes:

1. The stem describes a library service or program for which some alteration is being considered.
2. The stem may include a summary of steps already taken in implementing the proposed change.
3. The stem concludes with a question: "Of the steps listed below, which should you take next/first/last?"

Response Attributes:

1. Four or five alternative responses will be given, each of which is a step in planning, marketing, staffing, communicating or evaluating library services.
2. Each distractor must be plausible and management-related, although not necessarily related to the area of management under specific consideration in the particular item.

3. Responses may be determined as incorrect if out-of-sequence or inappropriate to the process required.

4. Each response will be a single step; no response will involve the combination of steps previously cited.

5. Only one response will be completely correct.

Criterion for Credit

Credit will be given for the correct answer only.

Item Sample:

You are considering implementing a service for the hospital library. Of the steps listed below, which should be taken first?

1. Establish objectives for the service
2. Establish a policy for the service
3. Perform a needs assessment
4. Review institutional goals

Source: Bradley, J. Hospital Library Management. Chicago: MLA, 1983, p. 201.

Item Format 2

Stimulus Attributes:

1. The stem contains the statement "You have an ongoing service in your library which you wish to improve/evaluate/market."

2. The stem may include a description of the situation and steps already taken.

3. The stem concludes with the following "Of the steps/approaches/techniques, etc., cited below, which would be taken first/last/next OR would be most/least appropriate?"

Response Attributes:

1. Four or five responses will be given, each a plausible element in management, but not necessarily in the area of specific consideration in this particular item.

2. Each response will be singular; no response will combine responses previously cited.

3. Responses will be incorrect if they are out-of-sequence or inappropriate to the process described.

4. Only one response will be correct.

Criterion for Credit

Credit will be given for the correct answer only.

Item Sample:

You have an ongoing set of procedures for cataloging in your library which you wish to evaluate. The purposes of the program are clear and the claim on staff time is well documented. Of the questions cited below, which is likely to yield the least helpful information for evaluation of the program?

1. What materials are needed?
2. Can the routine be simplified?
3. What alternatives might accomplish the same or similar purposes?
4. What role does the library committee play?

Source: Bradley, J. Hospital Library Management. Chicago: MLA, 1983, p. 324.

Item Format 3

Stimulus Attributes:

1. The stem presents a definition of a term or phrase relevant to marketing, staffing, planning, or evaluation of hospital library services.

Response Attributes:

1. To comprehend principles and concepts of effective financial resource management in hospital libraries.

2. Each distractor will be incorrect by definition.

3. Only one response will be correct.

Criterion for Credit

Credit will be given for the correct answer only.

Item Sample:

___________ anticipates institutional changes and analyzes how these changes may affect library services.

1. Management by objectives
2. Program planning
3. Project management
4. Quality assurance
5. Long-range planning

Source: Bradley, J. Hospital Library Management. Chicago: MLA, 1983, p. 204.

Objective 6

Statement of Objective

Understand principles and practices in the effective utilization of hospital library facilities and space.

General Description

Every examinee should be able to demonstrate knowledge of the principles which guide hospital librarians in the planning and management of hospital library facilities.

Content Limitations

Source: Bradley, J. Hospital Library Management. Chicago: MLA, 1983.

Key Elements: Space planning roles, space requirements and estimation techniques, planning documents, design and construction considerations, transfers and moves.

Item Format

Stimulus Attributes:

1. The stem will address a single issue/problem/principle related to space/facilities planning or management.
2. The stem will be introduced by a form of the question: Which of the following is the most/least useful/appropriate/likely ... followed by the description of an issue/problem/principle of space/facilities planning or management in hospital libraries.
3. All distractors will be plausible and related to management although not necessarily to space/facilities management.
4. Only one response will be completely correct.

Response Attributes:

1. Four or five responses will be listed, each consisting of a word, phrase, or sentence.
2. All distractors will be presented in parallel form.
3. All distractors will be plausible and related to management although not necessarily to space/facilities management.

4. Only one response will be completely correct.

Criterion for Credit

Credit will be given for the correct answer only.

Item Sample:

Which of the following purposes is least likely to be served by a written space program for the hospital library?

1. Assists in developing initial planning concepts
2. Helps in the process of analyzing space needs
3. Provides a persuasive document to lobby for new space
4. Clarifies the librarian's role in the hospital organization

Source: Bradley, J. Hospital Library Management. Chicago: MLA, 1983, p. 281.

AREA OF CONCENTRATION EXAMINATION
HOSPITAL LIBRARY

Objective 7

Statement of Objective

Comprehend principles and concepts of effective financial resource management in hospital libraries.

General Description

Every examinee should be acquainted with basic principles of financial management and should understand the terminology used in budgeting for library services.

Content Limitations

Source: Bradley, J. Hospital Library Management. Chicago: MLA, 1983.

Key Elements: Hospital financial systems, sources of funding, types of budgets and budget systems, the budgeting process, funding equivalents, sunk costs, opportunity costs, cost analyses, net present value calculations.

Item Format 1

Stimulus Attributes:

1. The stem is a definition or description of a term, principle or concept in financial management, displayed as a graphic or a narrative.

Response Attributes:

1. Four or five responses will be listed, each consisting of a single word, phrase, or acronym.
2. Responses may be spelled out or presented as acronyms, but all should be parallel within a stem.
3. All distractors should be plausible and management-related, although not necessarily related to financial management.
4. Distractors shall be incorrect by definition.
5. Distractors shall not include combinations of other responses.
6. Only one response will be completely correct.

Criterion for Credit

Credit will be given for the correct answer only.

Item Sample:

___________ is a techniques in which the budget preparer tabulates individually all expenses to come up with an overall amount for the coming year.

1. Cost-based budgeting
2. Add-on budgeting
3. Lump-sum budgeting
4. Zero-based budgeting

Source: Bradley, J. Hospital Library Management. Chicago: MLA, 1983, pp. 220-222.

Item Format 2

Stimulus Attributes:

1. The stem presents a problem or situation in financial resource management, displayed in graphic or narrative form.

2. The stem concludes with a question:
   (1) Which of the following should/should not be the first/last/next steps in solving/addressing the problem?
   (2) Which of the following is/is not useful in solving/addressing the problem/situation?

Response Attributes:

1. Four or five responses will be listed, each consisting of a letter, term, phrase.

2. Distractors will be presented in parallel format within the item.

3. All distractors will be plausible and management-related, although not necessarily related to financial management.

4. Distractors shall not include combinations of other distractors.

5. Only one response will be completely correct.

Criterion for Credit

Credit will be given for the correct answer only.

Item Sample 1:

Sample Library Budget
Statistical Comparative Line

	1986 Budget	1987 Budget	Increase or Decrease	Percent Change
I. PERSONNEL				
A. Salaries	$105,000	$127,000	+22,000	+21%
B. Pension	28,000	21,000	- 7,000	-25%
C. Social Security	12,000	10,500	- 1,500	-13%
D. Health Insurance	2,000	2,500	+ 500	+25%
	$147,000	(A) $161,000)	+$14,000	+10%
II. OTHER THAN PERSONNEL				
A. Administrative Fees	$ 5,000	$ 5,000	---	---
B. Library Materials	28,000	26,200	- 1,800	- 6%
C. Library Services	23,000	24,700	+ 1,700	+ 7%
D. Operation & Maintenance	40,500	45,765	+ 5,265	-13%
E. Capital Expenditures	12,000	13,800	+ 1,800	+15%
F. Memberships	250	250	---	---
Subtotal	$108,750	(B)$115,715	+ 6,965	+ 5%
TOTAL	(E)$255,750	(C)$276,715	(D)+20,965	+ 8%

If an add-on budget system is to be used next year for the budget displayed above, which line must be used initially to develop the budget?

1. A
2. B
3. D
4. E
5. C

Source: Bradley, J. Hospital Library Management. Chicago: MLA, 1983, pp. 221.

Item Sample 2:

You are preparing your budget request for journals next year and have collected the following data:

A. # of times each journal title circulated last year
B. # of times each journal title was photocopied last year
C. Amount spent for journal subscriptions last year

Which of the following would be the most useful information to add next to this list?

1. # of ILL's for journals last year?
2. # of journals owned in each subject area
3. Average cost per title for journals owned
4. Estimated inflation rate on journals

Source: Bradley, J. Hospital Library Management. Chicago: MLA, 1983, pp. 226.

APPENDIX VI

MEMO TO ITEM WRITERS (Sample)

To: Item Writers

From: Editorial Panel for the Certification and Registration Examination

We are very pleased that you are submitting items for consideration for the Examination. We have a big job ahead of us as we prepare a new Examination covering a wide variety of subject areas and levels of difficulty. Your assistance is crucial to the success of the new Examination.

Submit each item on a separate form, giving the Panel as much detail as possible about each item. Of particular importance is the citation giving the source of the correct answer. If the form does not have complete information, your materials will be returned without review, and you will be asked to submit the missing information.

Each item should be submitted to the Editor, who initiates the Panel's review process which follows:

1. The item is sent to a Panel member for review.
    a. Is the examination type specified and is it appropriate?
    b. Does the item conform to the objective?
    c. Does the item meet the model specification for that objective?
    d. Is the item accurate and does it have only one correct answer?
    e. Does the source provide the correct answer?
    f. Does the item seem reasonable in view of the stated objective?

2. At this point, the Panel member will recommend one of three possible actions:
    a. Accept the item as a part of the data bank.
    b. Accept the item with very minor revision (mostly editorial).
    c. Reject the item and discard it.

3. The Panel as a whole will review each of the items after the initial recommendation has been made and will come to consensus as to its final disposition.

To maintain examination confidentiality and credibility, you will not be notified as to whether or not your item was accepted. However, in order to provide recognition for those of you who have taken the time and effort to participate in the item writing process, the Panel will publish a list of persons who have submitted items in the **MLA News**. Our sincere appreciation goes along with this recognition!

PLEASE SEND ALL ITEMS TO THE EDITOR OF THE MLA CERTIFICATION/REGISTRATION EXAMINATION

1987/88 Editor
Rick B. Forsman
Dennison Library
University of Colorado Health Science Center
4200 East Ninth Avenue
Denver, Colorado 80262
303/394-5125

The current Editor's name and address and the names of the Editorial Panel are listed in the _MLA Directory_ with the committees.

APPENDIX VII

MEDICAL LIBRARY ASSOCIATION
EXAMINATION ITEM

(Please print or type)

For which exam is the item intended?

☐ General (Indicate which section)
- ☐ Health Care Environment
- ☐ Public Services
- ☐ Technical Services

☐ Area of Concentration (Indicate which exam)
- ☐ Public Services
- ☐ Technical Services
- ☐ Hospital Library Management

What is the objective number?____________________ Item Format?____________________

Stem

Distractors (The correct answer should be the last option.)

1.

2.

3.

4.

*5.

ITEM REVIEW (PANEL USE ONLY)

Date Received ______________ Panel Reviewer ________________________ Date Sent __________

Remmendation Date____________________

Accept ☐ Accept with Minor Revision ☐ Discard ☐

Date Accepted ________________ MPL ________________ Databank Number ______________

Dates Used ________________ ________________ ________________ ________________

Date of Withdrawal________________

Reason

Item form – 2

Explain what the item is intended to do.

Explain why each of the first four distractors is incorrect and why the fifth is correct.

1.

2.

3.

4.

5.

Give the source of the correct answer (exact citation).

Submitted by ____
Name

____

Address ____

____
City State Zip

Phone ______________________________
Area Code Number Extension

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APPENDIX IX

EVALUATION

WILL YOU DO US A FAVOR?

The Editorial Panel for the MLA Certification/Registration Examination is interested in knowing whether this manual has been useful to you in developing questions for the Examination. Please help us by reacting to the questions below and returning your response to:

Editor, MLA Certification/Registration Examination
Medical Library Association
919 North Michigan Avenue
Suite 3208
Chicago, Illinois 60611

How helpful were the following components of the Manual for Item Writers?

	Very	Somewhat	Not very
Information about Certification	____	____	____
Information about the Examination	____	____	____
Basic Considerations for Item Writers	____	____	____
Hints for Writers			
Preparing the Item-as-a-Whole	____	____	____
Formulating the Stem	____	____	____
Generating Distracter Options	____	____	____
The Review Process	____	____	____
Appendices			
Performance Objectives	____	____	____
Sample Items	____	____	____
Item Models	____	____	____

What suggestions do you have that would make the next edition of this manual more helpful to persons writing items for the MLA Examination?

Name____Date____________________
(optional)